

Section A: Solicitation/Contract Form

CONNECTIONS

**Telecommunications Equipment
and Service Support Contract**

TERM OF CONTRACT:

FROM DATE OF AWARD, THROUGH BASE PERIOD OF THREE YEARS.
THIS CONTRACT INCLUDES FIVE ONE-YEAR RENEWAL OPTIONS.

TYPE OF CONTRACT:

INDEFINITE DELIVERY-INDEFINITE QUANTITY, FIXED PRICE.

Section B: Supplies or Services and Prices

Supplies or Services and Prices

B.1 Pricing Overview

GSA has established three main categories of products and services to be offered under CONNECTIONS:

- Equipment and Services
- Support Services
- Solutions

Figure B.1-1 shows the three major Connections categories as well as the subcategories under each.

Equipment and Services	Support Services	Solutions
Voice*	Professional	Voice Communications
Data*	Technical	Data Communications
Video*	E-Business	Cable and Wire Management
		Voice and Video Conferencing
		Billing and Account Management
		Customer Service and Technical Support
		Other

* Note: **Supporting Equipment and Services** (which includes cabling and wiring, power systems, equipment racks, cross connection panels, etc.) is not a separate subcategory; however, offerors bidding in the Voice, Data, or Video sub-categories should propose associated supporting equipment as part of their Equipment and Services sub-category proposal. Supporting Equipment and Services is considered to be a set of enabling capabilities necessary for the delivery of products and services in the Voice, Data, and Video subcategories.

Figure B.1-1 CONNECTIONS Subcategories

National offerors may propose offerings in any one, two, or all three of these categories. Each category is subdivided into subcategories.

The evaluation and awarding of CONNECTIONS will be performed in three major steps. The steps are defined by geographic area served. A National set of awards will be awarded first to offerors who elect to provide service across the nation, including specified U.S. territories. Global awards will be made subsequently to offerors who propose to provide products and services in foreign countries. The last step will be to make awards to offerors who elect to provide coverage in one or more states of the United States.

National offerors are required to propose products or services in one or more of the three main categories. National offerors must bid the entire category for any main category proposed. Global and State offerors need only propose products and services in any one of the subcategories under the three main categories. Global and State offerors must bid the entire sub-category for any sub-category proposed. The overall effect is that National providers are required to provide a broad range of products and services, while State and Global providers can provide products and services within a subcategory or geographic area of their choosing. See Section G.4 for fair opportunity procedures.

The structure of this section is different from the pricing section of most Government Request for Proposals (RFPs), which are based on Contract Line Item Numbers (CLINs). Rather than precisely defining the required products and services by CLIN the Government has defined functional requirements and is giving offerors discretion to propose specific products and services that meet these functional requirements.

B.1.1 Pricing of Orders

All orders under this contract shall be priced in accordance with the price tables of this section. However, items not specifically listed in these price tables may be proposed in response to an order request under Other Direct Costs (ODC), provided that the items proposed fall within the scope of the applicable contract category as defined in Section C; the DAO determines the ODC prices are fair and reasonable using the policies and methods set forth in FAR Subparts 15.4 and 16.505(b); and the ODCs are within the maximum allowable amounts established for the applicable category by H.30 Other Direct Costs. The offeror shall propose fixed prices for all specified products and services identified in Section C (*Descriptions/Specifications/Work Statement*) for each applicable year of an eight-year period. The Federal Government is exempt from taxes imposed within the United States. There may be taxes, import duties, surcharges, and other charges, which may apply when proposing for foreign countries. These items shall be listed in the tax field of the Pricing tables. Items not identified will not be paid. Offerors shall use the tax rates in existence at the time of proposal submission that apply to the area under consideration for all years of the contract. All price tables shall be effective at the time of contract award. If the contract is awarded between October 1 and March 31 of a given fiscal year, price tables for contract

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pricing year one shall be effective through September 30 of that fiscal year. If the contract is awarded between April 1 and September 30 of a given fiscal year, price tables for contract pricing year one shall be effective through September 30 of the following fiscal year. For example, an award between April 1, 2002 and September 30, 2002 will be effective until September 30, 2003. Price tables for years two through eight shall be on a Government fiscal year basis.

Item descriptions, identifiers, and relevant specifications shall be entered into tables in the product information database (Product_Data.mdb) and the corresponding item prices shall be entered into tables in the prices database (Price_Data.mdb) per the table formats provided with this solicitation.

For National proposals, the offeror is required to submit one set of databases. Where the data are different for the different geographical areas specified in those portions of the Connections solicitation, different Sale_Areas shall be specified in the submitted databases to address geographical variations

Further instructions regarding pricing and the use of the appropriate tables in the databases are provided in this Section B and in the companion documents, "*Offeror Database Instructions*" and "*Bid Model Instructions*".

CONNECTIONS contracts will be Multiple Award, Indefinite Delivery-Indefinite Quantity type contracts.

B.1.2 Types of Pricing

Pricing elements fall into two major types:

- Equipment-oriented
- Labor-oriented

Each of these types has a different set of price elements as defined in Section B.1.2.6. The Solutions category uses both types of elements.

B.1.2.1 Price Sensitivity

The offeror may propose prices that are sensitive to the following factors:

Year. The contractor may increase prices on a yearly basis (i.e., Y1, Y2, ...Y8) in the Price proposal and may decrease prices at any time, in accordance with Section H. A separate table in the price proposal is required for each year of the contract.

Time of Day. The Normal Business Day (NBD) is defined in Section C to extend from 7:00 AM to 7:00 PM local time of the area supported, Monday through Friday, excluding Federal holidays. Outside of Normal Business Day (ONBD) specifies all other times.

Types of Products Provided. For example, data, voice, video, etc.

Site Dependent. Based on the contractor's work site or Government work site.

Geographic Area. Prices can vary by country or state.

B.1.2.2 Geographic Areas

Offerors may propose products and services in three geographic areas:

- National, including all of the United States and specified U.S. territories
- Individual states
- Individual countries

Territories fall into one of two classes:

- Specified territories are defined in the Areas table located in the Product_Data database using a two-character code
- Other U.S. territories are grouped with foreign countries and are defined with a three-character code

B.1.2.3 Reserved

B.1.2.4 Management Overhead

Management personnel defined in Section C.4.2.1 shall be charged to overhead and not priced separately.

B.1.2.5 Reserved

Table B.1-1 Reserved

B.1.2.6 Pricing Elements

The pricing elements for products include the following:

1. **Purchase Price.** The offeror's purchase price including any geographic dependencies, and relevant overhead charges. A contractor will be paid in full after the equipment is accepted by the Government.
2. **Cancellation Charge.** This price element includes one-time charges that may be incurred when a service, feature, or item of equipment is cancelled within one week of the scheduled due date. The cancellation charge shall be fair and reasonable. There shall be no cancellation charge when it is requested more than one week before the scheduled due date.
3. **Deinstall Charge.** This fee is for deinstalling equipment that is operational whether or not it was purchased from this offeror.
4. **Discontinuation Charge.** This fee may be applied for early termination of agreement for equipment when there is no fault due to the contractor.
5. **Installation Charge.** This fee is for providing installation services for the associated equipment. An offeror may specify minimum quantities for installation.
6. **Installation Charge (ONBD).** Installation fee for installations provided outside of the normal business day.
7. **Maintenance Charge.** A monthly fee for providing maintenance services.
8. **Operation Charges.** A monthly fee for providing operations services for this item of equipment.
9. **Recurring Fee.** A fee that may be required for recurring services not listed elsewhere.
10. **Shipping and Handling Charge.** Not allowed in the U.S., but may be required for certain foreign countries.
11. **Training Charge.** Fee for customary training on this item of equipment.
12. **Usage Charge.** Fee, if customary, for usage of equipment.

13. **Taxes.** Not allowed in the U.S., but intended to cover foreign taxes, import duties and other related fees.
14. **Homologation.** Charges incurred in a foreign country to homologate the product for usage there.

The pricing elements for support services include the following:

1. **Annual Price.** Labor rate when ordered for a full year.
2. **Discontinuation Charge.** A fee for early termination of committed agreement when the contractor is not at fault.
3. **Hour Price.** Labor rate when ordered by the hour.
4. **Maintenance Price.** Fee for certain services provided associated with labor.
5. **Monthly Price.** Labor rate when ordered on a month-to-month basis.
6. **Taxes.** Generally only applicable in foreign countries if imposed by the local government.

B.1.3 Associated Government Fee(s)

A GSA Associated Government Fee(s) (AGF) is applicable to purchases made through contracts awarded under this solicitation. After contract award, the AGF shall be added to items proposed by the contractor for purchase by agencies under this award. The contractor shall add the applicable AGF to each individual line item and resubmit the Price_Data database. GSA will publish the aggregate rate to users on its web site and in all appropriate publications. Offerors may only quote the aggregate price to customers and on their web site. At the end of each month, the contractor shall provide an *Associated Government Fee(s) Summary Report* (see Sections G. and J.).

Resubmission of the database shall be coincident with the establishment of the Offeror's management and administrative team within two weeks after award and shall include any updates to the offeror contact information in the Vendor table according to instructions in Section G.5.6.

B.1.4 Pricing Volume Instructions

The offeror shall describe any assumptions concerning the pricing in the Price Volume. Where the offeror has exercised discretion in the application of the price tables, the choices made by the offeror shall be clearly stated in this section.

The offeror shall provide a document entitled “Instructions for Pricing” that is available through its web page. The document shall provide detailed procedures for applying the price tables. The document shall provide for the capability for potential customers to compare products and services of interest without the need to understand the complexity of underlying price components. It shall also provide the user with the information necessary to understand these price components. A copy of draft “Instructions for Pricing” shall be provided with the Proposal.

B.1.5 Organization of this Section

Data table development for the product and services information and pricing requirements is described in Sections B.2 and Bid Model development is described in Section B.3. Price table fields and descriptions for the Common Tables, Equipment, Labor, and Solutions are provided in Sections B.4, B.5, B.6, and B.7 respectively.

B.2 Data Table Development

GSA intends to maintain a central repository of basic information online. It will be used by customers to narrow their search for products and services. This application will allow customers to perform searches by area, product and service category, and sub-category. The basis for these tables will be the Product_Data and Price_Data databases submitted by contractors with their proposals.

B.2.1 Database Structure

For clarity, the four database terms used throughout this section are defined as follows:

- **Database:** Contains a group of related database tables (.mdb)
- **Database Table:** Contains a group of related items
- **Record:** One line item (row) of information in a table
- **Field:** One data item (column) in a record.

Figure B.2-1 represents the tables that are located in the Product_Data and Price_Data databases. Each year’s prices shall be separately identifiable within one price table for each

category, i.e. Equip_Pricing. A field identifying the contract year is provided for this purpose.

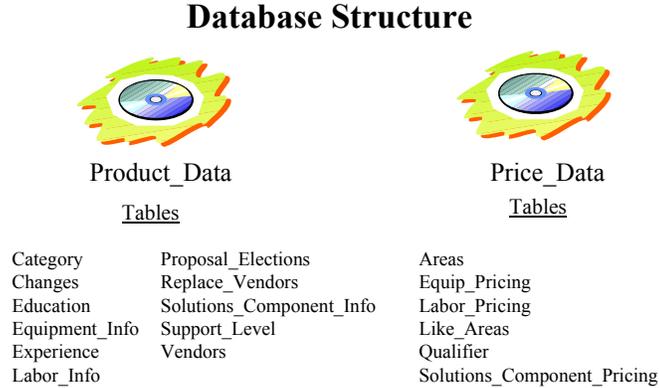


Figure B.2-1. Database Structure

In addition to the above information and pricing databases, two additional databases, depicted in Figure B.2-2, are provided for offeror use. The offeror must complete selected tables in the Bid Model database according to its proposal elections. The Master_Control database is provided to give offerors easier access to all the defined databases.

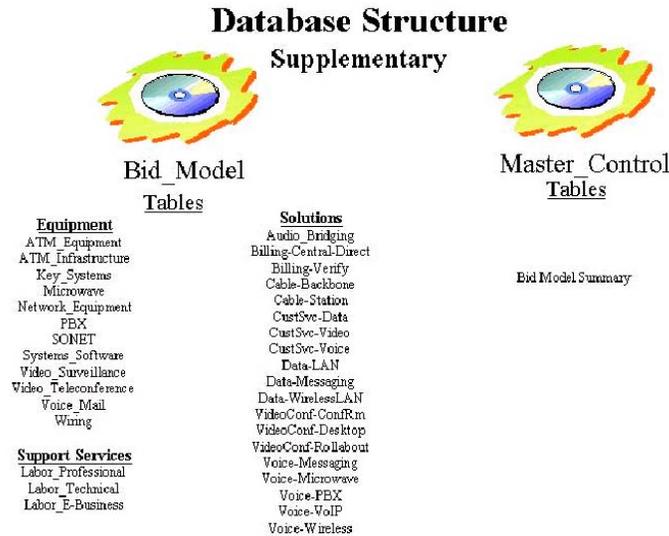


Figure B.2-2. Additional Database Structures

Shown in Table B.2-1 are the relevant information and pricing tables, separated on the left with the tables that the offeror is required to complete and on the right, the tables the Government has provided as informational tables. Price tables shall be kept separate from data information tables. These tables shall be cross-referenced via unique codes assigned by the offeror to products and services.

Table B.2-1. Tables Prepared by Offeror and Government

Tables (Offeror)	Informational Tables (Government)
Vendors	Areas
Proposal Elections	Category
Like Areas	Experience
Like Areas	Education
Replace Vendors	Qualifier
Equipment Info	
Equip Pricing	
Labor Info	
Labor Pricing	
Solutions Component Info	
Solutions Component-Pricing	
Bid Model Solutions tables (34 tables)	
Bid Model Pricing tables (34 tables)	
Bid Model Summary	

Detailed instructions including step-by-step instructions are contained in two companion documents: “Offeror Database Instructions” for the Product_Data and Price_Data databases and “Bid Model Instructions” for the Bid_Model database.

Each offeror shall be identified by the offeror’s name and a unique Offeror_ID code. Offerors (primes) proposing subcontractors shall propose each subcontractor’s products and services under the (prime) Offeror_ID code. Offerors shall not provide separate codes for sub-contractors. Offeror address and service contact information shall be provided for the prime offeror only. Separate entries shall be provided for each area offered.

B.2.2 Pricing Database Instructions

This section contains general instructions on how to price the products and services. Each of the three main categories of products and services uses a different table format. Inadvertent or deliberate changes to basic table structures may be cause for rejection.

- Product_Data, Price_Data, Bid_Model, and Master_Control database information shall be entered into a Microsoft Access database skeleton provided for this purpose.
- Forms have been included to assist in the data entry process. Offerors may develop their own forms so long as the base table formats are not modified.

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- Automated processes have been included to assist the offeror in pre-filling data tables for selected fields. Offerors may develop their own automation so long as the base table formats are not modified.
- Drop-down boxes have been included to assist the offeror in entering valid data into selected fields.
- Table column widths may be adjusted for viewing purposes only.

Each offeror shall select up to a ten-character code identifying itself in the database. This code is called the Offeror_ID code and is used throughout the database system for identifying the offeror's products and services and pricing. It is recommended that the offeror use their DUNS number in this field (www.dnb.com). Once an award is made and a contract is established, any duplicate submitted Offeror_ID codes will be reassigned by GSA. In conjunction with the Offeror_ID code, a code known as ID_Number is used to uniquely identify all products and services. Additionally, the Sale_Area code identifies the geographic area for which an item is proposed.

There are three basic Informational table sets corresponding to the three main categories: Equipment and Services, Support Services, and Solutions, as previously referenced in Figure B.1-3. Requirements for Equipment and Services differ from requirements for Support Services. Requirements for Solutions include information from both categories. If an item regarding Equipment and Services or Support Services is being entered into the database, all of the fields for that category shall be entered even though a few fields may not be applicable to the offeror's proposed product or service. These fields shall be entered as "N/A" for text fields and as "0" for numeric fields.

A separate Price table shall be submitted for each of the three main categories proposed. Pricing for different contract years shall be designated in each submitted price table via the contract year identifier field ("Yr") in the table. Offerors can also submit additional price data for different geographic areas without the necessity for new information tables or new price tables. Pricing tables include a geographic identifier field ("Sale_Area") which is to be used to differentiate pricing among the sale areas proposed. In effect, a complete pricing set shall be developed for each unique sale area offered. All the fields will exist in the same table with specific identifiers for year and area. The combination of Offeror_ID, ID_Number and Sale_Area provides a unique price for an item that might be sold worldwide at varying prices. The combination of these three fields will become the Contract Line Item Number (CLIN) as shown in Figure B.2-3.

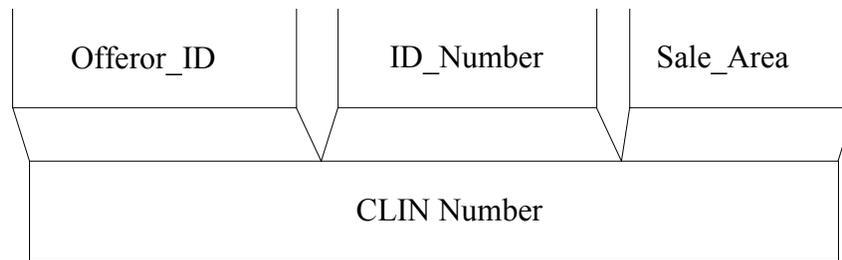


Figure B.2-3 CLIN Numbering Structure

The offeror need not provide additional Price_Data database information when proposing to serve several geographic areas with an identical pricing arrangement. See the description in Section B.3 for

Table B.3-7. Like_Areas Table.

B.2.3 Order Entry

As described in Section C., CONNECTIONS contracts require automated order entry and alternative backup systems for ordering. Offerors may elect to charge a surcharge for the alternative means of ordering (e.g., telephone). These surcharges shall be listed as a line item as any other service or product under CONNECTIONS. It shall be made clear that such surcharges exist and that they are identified by Offeror_ID and ID_Number for the specific methods used on the offeror's web site and any other marketing material prepared by the offeror for CONNECTIONS customers.

B.3 Common Tables (non-product/non-service specific)

The tables defined in this section are the common non-product/non-service specific tables that the offeror is required to populate as well as Government-prepared tables that provide information and definitions to the offerors. The list of common tables and their purpose is shown in

Table B.3-1. Product-specific and service-specific tables are defined in Section B.4 (Equipment and Services), Section B.5 (Support Services), and Section B.6 (Solutions). Specifics of field lengths and data types are defined within the database.

Table B.3-1. Common Tables

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Table	Purpose of Table
Vendors	Offeror input; defines offeror (vendor), provide offeror contact information
Proposal_Elections	Offeror input; defines the categories/sub-categories proposed for specified geographical area
Category	Informational table; defines categories/sub-categories by code number (Cat_Code)
Areas	Informational table; defines area code (Area_Code) associated with given area name
Like_Areas	Offeror input; defines areas where pricing is exactly the same as area that the offeror has priced previously
Experience	Informational table; defines ranges of experience years (See Table C.4.2 of Section C.4.2)
Education	Informational table; defines levels of education (See Table C.4.1 of Section C.4.2)
Support_Level	Informational table; defines Support_Codes
Qualifier	Informational table: defines price qualifiers and qualifier codes
Changes	Offeror input; defines changes vs. prior proposal
Replace_Vendors	Offeror input; defines vendor change data vs. prior proposal

The Vendors table and the Proposal_Elections table provide basic information about the offeror and its bid. The offeror is identified and the nature of its proposal is identified by category/sub-category proposed and geographical area proposed.

B.3.1 Vendors Table

The Vendors table (Table B.3-2) identifies basic information about the offeror. The data contained in this table is intended to provide CONNECTIONS customers with sufficient information to appropriately contact any offeror, submit orders, obtain additional product or service information, or obtain answers to billing questions. Offerors shall populate this table in its entirety, with one record for each area (Sale_Area) proposed. Subcontractor information, if applicable, is not contained in this table. The information contained in this table is as follows:

Table B.3-2. Vendors Table

Field Name	Field Description
Offeror_Name	Prime offeror company name
Offeror_ID	Prime offeror Identifier number

Field Name	Field Description
Sale_Area	Coded Area, country or state name (see Areas table for more information)
Offeror_Address	Prime offeror address
Offeror_City	Location of prime main office
Offeror_ST	Location of prime main office
Offeror_ZIP	Location of prime main office
Contact_Telephone	Main contact number-marketing information. Used for product information. Single POC for prime.
Contact_Alt_Number	Alternate contact number for prime
Fax_Number	Facsimile contact number for prime
Maintenance_contact	A single point of contact for all maintenance calls for prime
Web_Site_Address	For general information – Only specification of prime URL is allowed. Web site should provide links to other contacts.
Order_Contact	On-line ordering system information for prime (include URL address or instructions for online ordering)
Billing_Contact	For billing information and questions – contact information for prime

B.3.2 Proposal_Elections Table

The Proposal_Elections table (Table B.3-3) defines the offeror’s intentions regarding the categories and subcategories contained in its proposal. An offeror shall not categorize a product or service outside the range of their proposal; i.e., every product shall be categorized under one of the categories elected in the Proposal_Elections table. These elections shall follow the rules described earlier and in Section C. There shall be one record for each category/sub-category elected and for each geographical area proposed. Category codes to be used in this table are defined in the Category table (Table B.3-4).

Table B.3-3. Proposal_Elections Table

Field Name	Field Description
LevelA	Category proposed
LevelB	Sub-category proposed for an identified geographical area
Sale_Area	Geographical area proposed

B.3.3 Category Table

The Category table format is shown below. There are three “category level” fields and a category code in each record:

- A. Defines the category proposed; i.e., Equipment and Services, Support Services, or Solutions.

- B. Defines the first level of subcategory proposed. These subcategories are defined by one of the subsections in Sections C.3, C.4, and C.5; e.g., Section C.4.2.1 Professional Series.
- C. Defines the second level of subcategory proposed; e.g., Section C.4.2.1.4 Network Engineer.

Table B.3-4. Category Table

Field Name	Field Description
LevelA_code	Single digit code for Category proposed: “E” for Equipment and Supplies “L” for Labor “S” for Solutions
LevelA	Text identifier for given LevelA code identifier
LevelB_code	2-digit code for Sub-category proposed; corresponds to sub-categories defined in Table B.1-1; varies by geographical area proposed (Sale Area)
LevelB	Text identifier for given LevelB code identifier
LevelC_code	2-digit code for 2 nd Level of Sub-category; further identifies Equipment, Labor, and Scenario, as applicable (Note: if LevelC is not applicable then LevelC = LevelB)
LevelC	Text identifier for given LevelC code identifier
Cat_Code	5-digit code, uniquely defined for each combination of LevelA, LevelB, and LevelC identifiers; can be used for sorting purposes

The Category table is an informational table and is not modified by the offeror. A sample of the data contained in the Category table is shown in Table B.3-5. The entire Category table can be viewed in the database.

Table B.3-5. Category Table – Sample Data

LevelA_code	LevelA	LevelB_code	LevelB	LevelC_code	LevelC	Cat_Code
E	Equipment and Supplies	VE	Voice	A0	Telephone Station Instruments	EVEA0
E	Equipment and Supplies	DE	Data	A1	Hub Concentrators	EDEA1
E	Equipment and Supplies	VO	Video	B0	Video Surveillance	EVOB0
L	Support Services	LL		LL		LLLLL
L	Support Services	PR	Professional Series	PR		LPRPR
L	Support Services	PR	Professional Series	PM	Program Mgr	LPRPM
L	Support Services	PR	Professional Series	PM	Program Mgr	LPRPM

LevelA_code	LevelA	LevelB_code	LevelB	LevelC_code	LevelC	Cat Code

B.3.4 Areas Table

The Areas table, (Table B.3.6), provides a list of areas within which an offeror may wish to provide services or equipment. Provided along with country names are codes to be used when populating the pricing tables. This initial list of areas is only meant to be illustrative. Offerors may bid other areas by identifying the country and a code used in their proposal. Country codes are subject to review and approval by GSA. All U.S. states and specified territories use two letter abbreviations. Foreign countries and additional territories are assigned three letter codes. Two areas are required for National proposals – Continental United States (CONUS) and Other than Continental United States (OCNUS). A full copy of the table is located in the Price_Data database.

Table B.3-6. Areas Table

Item	AREA_NAME	AREA_CODE
1	ALABAMA	AL
2	ALASKA	AK
4	ARIZONA	AZ
5	ARKANSAS	AR
6	CALIFORNIA	CA
7	COLORADO	CO
8	CONNECTICUT	CT
9	DELAWARE	DE
10	DISTRICT OF COLUMBIA	DC
...		
60	United States, CONUS	CONUS
61	United States, OCONUS	OCNUS

B.3.5 Like_Areas Table

To reduce the number of price tables an offeror is required to submit when proposing to serve more than one area, the Like_Areas table (

Table B.3-7) may be used. This table may only be used where all pricing across the like Areas is identical by category to the pricing for a Sale_Area of a fully priced base proposal. The offeror shall list the Area codes of all proposed additional areas (Add_Area) that will be priced exactly the same as the base area (Base_Area) and identify the applicable category (Equipment and Services, Support Services, or Solutions). One like area code per record

shall be used. This table is located in the Price_Data database and can be accessed through the Master_Control database.

Table B.3-7. Like_Areas Table

Field Name	Field Description
Base_Area	Area code of submitted proposal
Add_Area	Area code(s) being proposed at identical prices to Base_Area prices
Category	Category (Equipment and Services, Support Services, or Solutions)

B.3.5.1 Experience Table; Education Table

The Experience Table (Table B.3-8) and the Education Table (Table B.3-9) are informational tables only. The tables provide a list of codes for various ranges of experience and levels of education that can be associated with a labor type support level that might be offered for various products. These codes are used when identifying labor types in the Labor_Info and Solutions_Component_Info tables.

Table B.3-8. Experience Table

Exp_Yrs	Exp_code
0-2	1
3-5	2
6-9	3
10-15	4
>15	5

Table B.3-9. Education Table

Educ_Level	Educ_code
High School diploma or less	1
Trade School	2
Bachelors degree	3
Masters degree	4
Doctoral degree	5

B.3.6 Support_Level Table

The Support_Level table (Table B.3-10) is an informational table only. It provides a list of codes for various support levels that might be offered for various products. It is not intended to be all-inclusive, and offerors may submit additional support level programs. Any additional codes submitted are subject to review and approval by GSA to maintain

uniqueness. These codes are used in the Equipment_Info and Solutions_Component_Info tables.

Table B.3-10. Support_Level Table

Support_Code	Description
24x7x52	Continuous round the clock support available through a single call center phone number 24 hours per day, seven days per week, 52 weeks per year
24x7x52P	Continuous round the clock support available through a single paging phone number
24x7x52M	Continuous round the clock support available through multiple phone numbers depending upon time of day/day of week
24x5x52	Continuous round the clock support available Monday through Friday only, excluding holidays
12x5x52	Support available through the Normal Business Day
	Additional codes to be added as needs warrant

B.3.7 Qualifier Table

The Qualifier table is an informational table only. The table is linked to the price tables and provides qualifier codes such as N/A (Not Applicable), NSP (Not separately priced), and PAL (price as listed) that are to be used to qualify selected price fields in a table.

Table B.3-11. Qualifier Table

Field	Description
Qualifier_Code	Coded name for this qualification
Qual_Description	Description of any qualifications (N/A, NSP, PAL)

B.3.8 Reserved

Reserved.

Table B.3-12. Reserved

Product_Service	Offeror_ID	ID_Number	Area_Code	Add_Del_Chg	Reason

B.3.9 Replace_Vendors Table

When pricing or informational tables are resubmitted, the original data will be removed in its entirety from the centrally maintained GSA database and replaced with the resubmission. The Offeror_ID code shall be used to identify all previous entries that should be removed from the central database. The Replace_Vendors table (Table B.3-13) identifies all Offeror_ID codes that are to be replaced. Failure to list an Offeror_ID code that is being replaced will result in duplicate entries in the central database. Both sets of the duplicate entry may be deleted from the database, thereby limiting information dissemination regarding that contractor until the next update.

Table B.3-13. Replace_Vendors Table

Offeror_ID	Area Code

B.4 Equipment and Services

Offerors who propose to provide Equipment and Services shall complete the Equipment_Info table (Table B.4-1) and Equip_Pricing table (Table B.4-2), which are shown below. The ID_Number field is assigned by the offeror. The ID_Number is a unique designation for each product and service. Assignment of the ID_Number shall be managed by the offeror. Offerors shall not reuse an ID_Number. The uniqueness of the ID_Number applies across all products and services proposed by an individual offeror. The Cat_Code identifies the category, sub-category and associated requirement for each product proposed. The offeror shall propose at least one product for each Cat_Code within a proposed sub-category. The offeror shall provide pricing in the Equip_Pricing table by Sale_Area by year for each ID_Number specified in the Equipment_Info table. Items not specifically listed in these two tables may be proposed in response to an order request under Other Direct Costs (ODC), provided that the items proposed fall within the scope of the applicable contract category as defined in Section C; the DAO determines the ODC prices are fair and reasonable using the policies and methods set forth in FAR Subparts 15.4 and 16.505(b); and the ODCs are within the maximum allowable amounts established for the applicable category by H.30 Other Direct Costs.

Table B.4-1. Equipment_Info Table

Field Name	Field Description	Source *
Product	Name of product or service (max 50 char)	VM

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Field Name	Field Description	Source *
ID_Number	Unique ID for this offeror product, assigned by offerors	VM
Reference_No	Unique number in CONNECTIONS system-assigned by GSA	GSA
Description	Complete description of product or service (max 255 characters) including functionality	VM
Prerequisites	By ID_Number: selection from a group separated by commas; multiple requirements separated by semi-colons	VD
Dependencies	By ID_Number: selection from a group separated by commas; multiple requirements separated by semi-colons	VD
Options	By ID_Number: describe options available that are in addition to Prerequisites and Dependencies.	VD
Specifications	Highlights of performance factors	VM
Standards	All standards met, listed by standard number designation (e.g., ITU xxxx, EIA xxxx)	VD
Interoperability	Manufacturer/distributor/lab tested to be interoperable with (list)	VO
ISO9000	Y or N, manufactured under ISO 9000 registration	VO
Manufacturer	Original Equipment Manufacturer	VM
Origin	Country of manufacture	VM
Model_No	Exact manufacturer model number of this product	VM
User_Install	Y or N, capable of being installed by	VM
Install_Restrictions	Describe installation restrictions, including minimum quantity order for installation at stated price. State additional cost applied as ODC for fewer quantities.	VO
Training	Describe the type of training available for this product e.g., installation, operation, CD ROM based, classroom ...	VD
MTBF	Mean Time Between Failure in hours	VD
MTTR	Mean Time to Repair in hours	VD
Bundle	Y or N, Y if this is a packaged bundle	VM
Bundle_Includes	List of ID Numbers included in this bundle	VM
Order_separate	Y or N, N If a component of a bundle and not separately orderable, only name, description, manufacturer, model number is required	VM
Bundled_with	List of bundles (ID_Number) this item is part of, used specifically when Order_separate is N, but may be used with Y as well	VD
Warranty_Desc	Description of warranty options available	VM
Warranty_Length	Term of the warranty in months, use 999 for lifetime warranty	VM
Maintenance_Plan	Describe maintenance plan for this product, (e.g., mail-in, depot drop-off, on-site), if more than one available, first one is priced maintenance, others are options available	VD
Power	Description of power requirements e.g., Europe 220v, 50 Hz, 1000w separate circuit (multiple options are separated by semi-colons)	VM
Support level	Coded text indicating level of offeror support available. See Support_Level table in database for codes	VM
Replaced_By	ID Numbers that are used to replace this item	RES
Replaces	ID Numbers that are being replaced by this item	RES
Cat_Code	Defines the category/sub-category/requirement in which this product is proposed.	VM
Last_Update	Date of original submission or most recent submission with a change (Retain last submission value if all items in this record are unchanged.)	VM

* Sources are: VM – Vendor Mandatory, VD – Vendor mandatory depending upon equipment or support services category and/or other circumstances, VO – Vendor optional, GSA – Vendor leaves blank, RES – Reserved –not for initial database submission, used for future database updates.

Table B.4-2. Equip_Pricing Table

Field Name	Field Description
Product	Name of product or service (max 50 char)
ID_Number	Unique ID for this offeror product, assigned by offerors (see Instructions) Must never reuse through life of contract
Sale_Area	Coded Area, country or state name (see areas table for more information)
Homologation ¹	Approval number from Sale_Area above - used only for applicable foreign countries
Lead_Time	Time from order to delivery on-site to this area defined in calendar days
Price_Unit	Unit of measure upon which this price is based.
Price	There are several prices applicable for this item – see the Price_Data database for complete and specific lists – Included are installation, maintenance, shipping and handling fees and other charges which may apply.
Taxes	All applicable taxes, see B.1
Tax_Explanation	List all taxes included within this fee
Yr	Contract year indicator (Yr=1-8)
Last_Update_P	Date of original submission or most recent submission with a change (Date will retain last submission value if all items in this record are unchanged.)

When no homologation approval number is submitted in a foreign country, a document shall be submitted certifying no homologation numbers are used in that country or for that type of product.

Offerors may be requested to provide maintenance on existing equipment. Enter a line item to price accordingly.

B.5 Support Services

Offerors who propose to provide services under the Support Services category shall complete the Labor_Info table (Table B.5-1) and Labor_Pricing table (Table B.5-2), which are shown below.

The ID_Number field is assigned by the offeror. The ID_Number is a unique designation for each product and service. Assignment of the ID_Number shall be managed by the offeror. Offerors shall not reuse an ID_Number. The uniqueness of the ID_Number applies across all products and services proposed by an individual offeror.

The Cat_Code identifies the category, sub-category and associated requirement for each labor type proposed. The offeror shall propose at least one labor type for each Cat_Code within a proposed sub-category with the following exception. Though the Program Manager

¹ Homologation is the process of certifying a particular component part/system/technical unit with the appropriate regulatory or Government agency in a foreign country.

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position is generally priced as part of overhead (Not Separately Priced), the offeror may propose and price the Program Manager position for use on a specific Task Order basis under the Cat_Code LPRPM. The submission of pricing for the Program Manager-Task Order Basis and the use of the LPRPM category code are optional to the offeror.

The offeror is not limited to proposing only the positions as identified in the Category table. If the offeror proposes labor categories beyond those specified in the Category table, the offeror shall use the following category codes to designate “other” labor categories – LTKOT for Labor-Technical-Other, LPROT for Labor-Professional-Other, and LEBOT for Labor-E-Business-Other. The submission of additional labor categories and the use of the “other” pricing category codes are optional to the offeror.

The offeror shall provide pricing in the Labor_Pricing table by Sale_Area by year for each ID_Number specified in the Labor_Info table. Items not specifically listed in these two tables may be proposed in response to an order request under Other Direct Costs (ODC), provided that the items proposed fall within the scope of the applicable contract category as defined in Section C; the DAO determines the ODC prices are fair and reasonable using the policies and methods set forth in FAR Subparts 15.4 and 16.505(b); and the ODCs are within the maximum allowable amounts established for the applicable category by H.30 Other Direct Costs.

Table B.5-1. Labor_Info Table

Field Name	Field Description	Source *
Labor_Type_Name	Generally, position title or description of Support Services category	VM
ID_Number	Unique ID for this offeror product, assigned by offerors (see Instructions)	VM
Reference_No	Unique number in CONNECTIONS system-assigned by GSA	GSA
Description	Complete description of product or service (max 255 characters) including functionality	VM
Cat_Code	Defines the category/sub-category/requirement in which this product is proposed.	VM
Exp_code	Defines the number of experience years associated with unique ID_Number	VM
Educ_code	Defines the education level associated with unique ID_Number	VM
Last_Update	Date of original submission or most recent submission with a change (Date will retain last submission value if all items in this record -are unchanged.)	VM

* Sources are: VM – Vendor Mandatory, VD – Vendor mandatory depending upon equipment or support services category and/or other circumstances, VO – Vendor optional, GSA – Vendor leaves blank, RES – Reserved –not for initial database submission, used for future database updates.

Table B.5-2. Labor_Pricing Table

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Field Name	Field Description
Labor_Type_Name	Generally, position title or description of Support Services category
ID_Number	Unique ID for this offeror product, assigned by offerors (see Instructions) Must never reuse through life of contract
Sale_Area	Coded Area, country or state name (see Areas table for more information)
Lead_Time	Time from order to delivery on-site to this area defined in calendar days
Price_Unit	Unit of measure upon which this price is based.
Price	There are several prices applicable for this item – see the Price_Data database for complete and specific lists – Included are hourly, monthly and annual rates and other charges which may apply.
Premises_Fee	Allows for contractor fee for work accomplished on Contractor’s premises due to additional overhead.
Taxes	All applicable taxes, see B.1
Tax_Explanation	List all taxes, duties, surcharges included within this fee
Yr	Contract year indicator (Yr=1-8)
Last_Update_P	Date of original submission or most recent submission with a change (Date will retain last submission value if all items in this record are unchanged.)

B.6 Solutions

Offerors who propose to provide equipment and services under the Solutions category shall complete the Solutions_Component_Info table and Solutions_Component_Pricing table. Proposing in the Solutions category entails working out a complete solution to a hypothetical problem and listing the entire set of solution details in the Solutions_Component_Info table including labor, equipment, materials, and supplies. In addition, any products and services that are part of the normal course of business but are not used in a particular solution shall be added. Items not specifically listed in these two tables may be proposed in response to an order request under Other Direct Costs (ODC), provided that the items proposed fall within the scope of the applicable contract category as defined in Section C; the DAO determines the ODC prices are fair and reasonable using the policies and methods set forth in FAR Subparts 15.4 and 16.505(b); and the ODCs are within the maximum allowable amounts established for the applicable category by H.30 Other Direct Costs. The hypothetical problems are defined as *Scenarios* and may be found in Section J.10. Table B.6-1 and Table B.6-2 are shown below.

The ID_Number field is assigned by the offeror. The ID_Number is a unique designation for each product and service. Assignment of the ID_Number shall be managed by the offeror. Offerors shall not reuse an ID_Number. The uniqueness of the ID_Number applies across all products and services proposed by an individual offeror. The Cat_Code identifies the category, sub-category and associated requirement for each product type proposed. The offeror shall propose at least one product type for each Cat_Code within a proposed sub-category. The offeror shall provide pricing in the Solutions_Component_Pricing table by Sale_Area by year for each ID_Number specified in the Solution_Components_Info table.

Table B.6-1. Solutions_Component_Info Table

Field Name	Field Description	Source *
Product_Type_Name	Generally, position title or description of Support Services category or name of product	VM
ID_Number	Unique ID for this offeror product, assigned by offerors (see Section B.1.5) Must never reuse through life of contract	VM
Reference_No	Unique number in CONNECTIONS system-assigned by GSA	GSA
Description	Complete description of product or service (max 255 characters) including functionality	VM
Prerequisites	By ID_Number: selection from a group separated by commas; multiple requirements separated by semi-colons	VD
Dependencies	By ID_Number: selection from a group separated by commas; multiple requirements separated by semi-colons	VD
Options	By ID_Number: describe options available that are in addition to Prerequisites and Dependencies.	VD
Specifications	Highlights of performance factors for equipment, capabilities for labor	VM
Standards	All standards met, listed by standard number designation (e.g., ITU xxxx, EIA xxxx)	VD
Interoperability	Manufacturer/distributor/lab tested to be interoperable with (list)	VO
ISO9000	Y or N manufactured under ISO 9000 registration	VO
Manufacturer	Manufacturing company - for products	VD
Origin	Country of manufacture - for products	VD
Model_No	Exact manufacturer model number of this product	VD
Training	Describe the type of training available for this product e.g., installation, operation, CD ROM based, classroom ...	VD
MTBF	Mean Time Between Failure in hours	VD
MTTR	Mean Time to Repair in hours	VD
Bundle_Includes	List of ID_Numbers included in this bundle	VD
Order_Separate	Y or N, N If a component of a bundle and not separately orderable, only name, description, manufacturer, model_no, MTBF, MTTR is required	VD
Warranty_Desc	Description of warranty options available	VD
Warranty_Length	Term of the Warranty in months, use 999 for lifetime warranty	VD
Maintenance_Plan	Describe maintenance plan for this product, e.g., mail-in, depot drop-off, on-site, if more than one available, first one is priced maintenance, others are options available	VD
Power	Description of power requirements e.g., Europe 220v, 50 Hz, 1000w safety ground, separate circuit (multiple options are separated by semi-colons)	VD
Support_Level	Coded text indicating level of offeror support available. See table for codes	VD
Prod_Svc	P or S to identify whether this item is a product or service.	VM
Cat_Code	Defines the category/sub-category/requirement in which this product is proposed.	VM
Exp_code	Defines the number of experience years associated with unique ID_Number	VM
Educ_code	Defines the education level associated with unique ID_Number	VM
Last_Update	Date of original submission or most recent submission with a change (Date will retain last submission value if all items in this record are unchanged.)	VM

* Sources are: VM – Vendor Mandatory, VD – Vendor mandatory depending upon equipment or support services category and/or other circumstances, VO – Vendor optional, GSA – Vendor leaves blank, RES – Reserved –not for initial database submission, used for future database updates.

Table B.6-2. Solutions_Component_Pricing Table

Field Name	Field Description
Product_Type_Name	Generally, position title or description of Support Services category or name of product
ID_Number	Unique ID for this offeror product, assigned by offerors (see Instructions) Must never duplicate through life of contract
Sale_Area	Coded Area, country or state name (see Areas table for more information)
Homologation	Approval number from Sale_Area above - used only for applicable foreign countries
Lead_Time	Time from order to delivery on-site to this area defined in calendar days
Price_Unit	Unit of measure upon which this price is based.
Price	There are several prices applicable for this item – see the Price_Data database for complete and specific lists – Included are installation, maintenance, shipping and handling fees for equipment and hourly, monthly and annual rates for labor and other charges which may apply.
Premises_Fee	Allows for contractor fee for work accomplished on Contractor’s premises due to additional overhead.
Taxes	All applicable taxes, see B.1
Tax_Explanation	List all taxes included within this fee
Yr	Contract year indicator (Yr=1-8)
Last_Update_P	Date of original submission or most recent submission with a change (Date will retain last submission value if all items in this record are unchanged.)

When no Homologation approval number is submitted for a foreign country, a document certifying no homologation numbers are used in that country or for that type of product shall be submitted.

In the event that the offeror chooses to propose a solution beyond those specified in section C.3.5 of this solicitation and described in section J.10, no entry is required in the Product_Data and Price_Data databases. Instead, in the Volume IV Section 5 narrative response, the offeror shall submit a full description of the solution proposed, list all equipment items and labor categories required to implement the solution, list the quantities required for all equipment items and for all labor categories, and list the prices for years 1 through 8 for each item. The offeror shall also state the total price for implementation of the solution in each year, 1 through 8. The offeror shall include prices for both CONUS and OCONUS areas.

B.7 Bid Models

The offeror shall submit completed bid models for each proposed category or sub-category of products and services. Offerors submitting a National proposal shall submit bid models for the entire category(ies) proposed. Global and state offerors shall submit bid models based on the particular sub-category(ies) proposed.

The offeror shall submit bid model pricing for each sale area proposed, for each year, and an eight-year total. All items listed in the Bid Models shall also be contained in the Price tables. Any additional products that are marketed and serviced by the offeror may be listed to

increase the breadth of coverage of the offering. Items not specifically listed in these two tables may be proposed in response to an order request under Other Direct Costs (ODC), provided that the items proposed fall within the scope of the applicable contract category as set forth in Section C; the DAO determines the ODC prices are fair and reasonable using the policies and methods set forth in FAR Subparts 15.4 and 16.505(b); and the ODCs are within the maximum allowable amounts established for the applicable category by H.30 Other Direct Costs. Failure to price the required Bid Models for a proposed category or subcategory will invalidate that category of the proposal.

The instructions for completing Bid Models are explained in further detail in the document “Bid Model Instructions”, a companion document to this RFP.

B.7.1 Required Bid Model Types

In order to submit a qualified proposal, the offeror shall complete the bid models appropriate to its proposal elections. Displayed in Table B.7-1 are the required bid model types by category and sub-category.

Bid models are unique to the sub-category selected with the following exceptions. The Model_Equip-ATM Equipment, Model_Equip-ATM_Infrastructure, Model_Equip-Microwave, and Model_Equip-SONET bid models are required in both the Equipment and Services-Voice and the Equipment and Services-Data sub-categories. The Model_Equip_Wiring is required in all three Equipment sub-categories.

Table B.7-1. Required Bid Model Types by Sub-Category

Category 1 Equipment and Services	Category 2 Support Services	Category 3 Solutions
Voice Model_Equip-ATM_Equipment Model_Equip-ATM_Infrastructure Model_Equip-Key_Systems Model_Equip-Microwave Model_Equip-PBX Model_Equip-SONET Model_Equip-Voice_Mail Model_Equip-Wiring	Professional Model_Labor-Professional	Voice Communications Sol-Voice-VoIP Sol-Voice-PBX Sol-Voice-Wireless Sol-Voice-Microwave Sol-Voice-Messaging
Data Model_Equip-ATM_Equipment Model_Equip-ATM_Infrastructure Model_Equip-Microwave Model_Equip-Network_Equipment Model_Equip-SONET Model_Equip-Systems_Software Model_Equip-Wiring	Technical Model_Labor-Technical	Data Communications Sol-Data-LAN Sol-Data-WirelessLAN Sol-Data-Messaging

Category 1 Equipment and Services	Category 2 Support Services	Category 3 Solutions
Video Model_Equip-Video_Surveillance Model_Equip-Video_Teleconference Model_Equip-Wiring	E-Business Model_Labor-E-Business	Cable and Wire Management Sol-Cable-Backbone Sol-Cable-Station
		Voice and Video Conferencing Sol-VideoConf-ConfRm Sol-VideoConf-Rollabout Sol-VideoConf-Desktop Sol-Audio-Bridging
		Billing and Account Management Sol-Billing-Central-Direct Sol-Billing-Verify
		Customer Service and Technical Support Sol-CustSvc-Voice Sol-CustSvc-Data Sol-CustSvc-Video

B.7.2 Bid_Model Database -- Table Structure

The Bid_Model database contains three different types of tables (Table B.7-2). Bid Model Solutions tables are tables in which the offeror is required to identify the items (ID_Number) from the Product_Data database that fulfill the requirements specified for the selected bid model. For National and State proposals, the Bid Model Solutions tables do not vary by sale area or by year. For Global proposals, a bid model solution may vary by country. Bid Model Pricing tables are tables in which the offeror shall provide the pricing (by sale area, by year) from the Price_Data database for each item identified in a bid model table and the calculated “extended” price for that item. The Bid_Model_Summary table contains the Total Evaluated Price for each bid model for each sale area by year and an eight-year sum total.

Table B.7-2. Bid_Model Database Tables

Bid Model Solutions Tables	Corresponding Bid Model Pricing Tables	Total Evaluated Price Table
Model_Equip-ATM_Equipment	BM_Model_Equip-ATM_Equipment	Bid_Model_Summary
Model_Equip-ATM_Infrastructure	BM_Model_Equip-ATM_Infrastructure	
Model_Equip-Key_Systems	BM_Model_Equip-Key_Systems	
Model_Equip-Microwave	BM_Model_Equip-Microwave	
Model_Equip-Network_Equipment	BM_Model_Equip-Network_Equipment	
Model_Equip-PBX	BM_Model_Equip-PBX	
Model_Equip-SONET	BM_Model_Equip-SONET	
Model_Equip-Systems_Software	BM_Model_Equip-Systems_Software	
Model_Equip-Video_Surveillance	BM_Model_Equip-Video_Surveillance	

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Bid Model Solutions Tables	Corresponding Bid Model Pricing Tables	Total Evaluated Price Table
Model_Equip-Video_Teleconference	BM_Model_Equip-Video_Teleconference	
Model_Equip-Voice_Mail	BM_Model_Equip-Voice_Mail	
Model_Equip-Wiring	BM_Model_Equip-Wiring	
Model_Labor-E-Business	BM_Model_Labor-E-Business	
Model_Labor-Professional	BM_Model_Labor-Professional	
Model_Labor-Technical	BM_Model_Labor-Technical	
Sol-Audio-Bridging	BM_Sol-Audio-Bridging	
Sol-Billing-Central-Direct	BM_Sol-Billing-Central-Direct	
Sol-Billing-Verify	BM_Sol-Billing-Verify	
Sol-Cable-Backbone	BM_Sol-Cable-Backbone	
Sol-Cable-Station	BM_Sol-Cable-Station	
Sol-CustSvc-Data	BM_Sol-CustSvc-Data	
Sol-CustSvc-Video	BM_Sol-CustSvc-Video	
Sol-CustSvc-Voice	BM_Sol-CustSvc-Voice	
Sol-Data-LAN	BM_Sol-Data-LAN	
Sol-Data-Messaging	BM_Sol-Data-Messaging	
Sol-Data-WirelessLAN	BM_Sol-Data-WirelessLAN	
Sol-VideoConf-ConfRm	BM_Sol-VideoConf-ConfRm	
Sol-VideoConf-Desktop	BM_Sol-VideoConf-Desktop	
Sol-VideoConf-Rollabout	BM_Sol-VideoConf-Rollabout	
Sol-Voice-Messaging	BM_Sol-Voice-Messaging	
Sol-Voice-Microwave	BM_Sol-Voice-Microwave	
Sol-Voice-PBX	BM_Sol-Voice-PBX	
Sol-Voice-VoIP	BM_Sol-Voice-VoIP	
Sol-Voice-Wireless	BM_Sol-Voice-Wireless	

B.7.3 Bid Model Solutions Tables

The offeror shall enter bid model solutions into the bid model solutions tables for all categories and sub-categories proposed. For National and State proposals, the offeror shall develop and submit one bid model solution for all sale areas proposed. The offeror shall not vary National and State bid model solutions by sale area or by year. For Global offerors, the offeror may vary the bid model solution by country; the offeror shall differentiate bid model solutions by country via the name of the bid model tables. The offeror shall not vary Global bid model solutions by year.

The offeror shall enter the items (ID_Number) proposed for the selected bid model into the Bid Model Solutions table (e.g. Model_Labor-Professional). For Equipment and Services bid models. The offeror shall enter ID_Numbers that have been previously entered in the Equip_Info table in the Product_Data database. For Support Services (Labor) bid models, the offeror shall enter ID_Numbers that have been previously entered in the Labor_Info table in the Product_Data database. For Solutions bid models, the offeror shall enter ID_Numbers

that have been previously entered in the Solutions_Info table in the Product_Data database. The offeror shall submit at least one item (ID_Number) per requirement in a given Bid_Model table (except for rows used for headings). A drop-down box of all ID_Numbers and Product descriptions appropriate for a given bid model (linked to the Product_Data database) is provided.

In the Equipment and Services bid models and in the Support Services bid models, the offeror **shall not change** the value in the Sort_No fields. The offeror may enter additional rows (records) for a specific requirement. Any rows added shall contain the same Sort_No as contained in the row establishing the requirement.

In the Solutions category bid models, the offeror shall establish a Sort_No for each requirement. The offeror shall maintain the same Sort_No for all items relevant to the same requirement.

The quantities provided in the Equipment and Services bid models and in the Support Services bid models are provided for evaluation purposes only. The offeror **shall not change** quantity data as it applies to a given requirement with the following two (2) exceptions.(1) All non-zero quantities for a specific requirement can be divided among different items proposed to satisfy the requirement. For example, if the quantity for Requirement A is 500; the offeror may propose multiple items to fulfill the requirement; Item 1 at quantity = 300 and Item 2 at quantity = 200. The total quantity for the requirement must remain at 500. (2) If the offeror inserts additional items (e.g. connectors, peripheral items) against a requirement which are higher or lower than the quantity provided for the requirement, the offeror may insert a quantity as appropriate. In either case, the change in quantity from the quantity provided in a given bid model shall be documented as an assumption in the bid model narrative in Section 5 of the offeror's price Volume IV.

In the Solutions category bid models, the offeror may adjust quantity data as appropriate.

The Bid Model Solutions tables contain price decision fields, which contain a value = 0 or 1. In completing the Equipment and Services bid models and/or the Support Solutions bid models, the offeror **shall not change** the default values in the price decision fields. These fields are for Government-use only. The default values for Equipment and Services bid models are set at "1" for Purchase, Installation, and Maintenance; the default value for Operations, Ship_Handling, Usage, and Recurring are set at "0". The default values in the Support Services bid models are set at "1" for Hour. If additional rows are inserted against a given requirement, the default values for the original requirement apply to the decision fields in the inserted rows.

In the Solutions category bid models, the offeror shall indicate which prices are applicable to the Solutions scenario. The offeror shall enter a "0" (not applicable) or a "1" (applicable) into the price decision fields.

There are twelve (12) Equipment and Services bid model tables, three (3) Support Services bid model tables, and nineteen (19) Solutions bid model tables. The fields in the Equipment and Services bid model solutions tables are shown in the following table. The offeror shall enter ID_Numbers that have been previously entered in the Equip_Info table in the Product_Data database.

Table B.7-3. Equipment and Services Bid Model Solutions Tables

Field Name	Field Description
Sort_No	Numerical identifier of requirement and line items associated with requirement; cannot be modified by the offeror but may be duplicated for additional items relevant to a requirement
ID_Number	As specified in Product_Data database
Requirement	Requirements listed in table for specific bid model
Quantity	Quantity of items for specific requirement; offeror shall not change quantities except as specified in instructions
Purchase	Government use only ; default value =1
Installation	Government use only ; default value =1
Maintenance	Government use only ; default value =1
Operations	Government use only ; default value =0
Ship_Handling	Government use only ; default value =0
Usage	Government use only ; default value =0
Recurring	Government use only ; default value =0

The fields in the Support Services bid model solutions tables are shown in the following table. The offeror shall enter ID_Numbers that have been previously entered in the Labor_Info table in the Product_Data database.

Table B.7-4. Support Service Bid Model Solutions Tables

Field Name	Field Description
Sort_No	Numerical identifier of requirement and line items associated with requirement; cannot be modified by the offeror but may be duplicated for additional items relevant to a requirement
ID_Number	As specified in Product_Data database
Requirement	Requirements listed in table for specific bid model
Quantity	Quantity of items for specific requirement; offeror shall not change quantities except as specified in instructions
Hour	Government use only ; default value =1

The fields in the Solutions bid model solutions tables are shown in the following table. The offeror shall enter ID_Numbers that have been previously entered in the Solutions_Info table in the Product_Data database.

Table B.7-5. Solutions Bid Model Solutions Tables

Field Name	Field Description
Sort_No	Numerical identifier of requirement and line items associated with requirement; the offeror shall maintain the same Sort_No for all items relevant to the same requirement
ID_Number	As specified in Product_Data database
Requirement	Requirements listed in table for specific bid model
Quantity	Specify quantity according to instructions and requirements
Purchase	0 (not applicable) or 1 (applicable)
Installation	0 (not applicable) or 1 (applicable)
Maintenance	0 (not applicable) or 1 (applicable)
Operations	0 (not applicable) or 1 (applicable)
Ship_Handling	0 (not applicable) or 1 (applicable)
Usage	0 (not applicable) or 1 (applicable)
Recurring	0 (not applicable) or 1 (applicable)
Annual	0 (not applicable) or 1 (applicable)
Hour	0 (not applicable) or 1 (applicable)
Month	0 (not applicable) or 1 (applicable)

Data can be entered via direct table entry into a bid model solutions table or through menu selection. If using the menu, the offeror is directed to a secondary menu showing menu selections for all bid models. The offeror chooses the bid model to be developed and is directed to the appropriate bid model table.

In the event that the offeror chooses to propose a solution beyond those specified in section C.3.5 of this solicitation and described in section J.10, no entry is required in the Bid_Model database.

B.7.4 Bid_Model Pricing Tables

Once a bid model solution is developed for a sub-category, the offeror shall price the solution in the bid model pricing tables. Bid model solutions shall be priced by sale area by year. Prices by sale area by year shall be retrieved from the Price_Data database by ID_Number and inserted into the price fields in the bid model pricing tables. The values (0 or 1) in the price decision fields shall be retrieved from the bid model solutions tables and inserted into the corresponding fields in the bid model pricing tables. The “extended” price (Ext_Price) shall be calculated for each item (ID_Number) based upon prices and price decision fields. The extended price is equal to the sum of the bid model quantity times the non-recurring price(s) (e.g. purchase price, installation price) plus the bid model quantity times 12 times the recurring price(s) (e.g. maintenance charge, operations charge). An automated process, documented in “Bid Model Instructions”, is provided to aide the offeror in the completion of the bid model pricing tables.

The bid model pricing tables correspond to the bid model solutions tables. There are twelve (12) Equipment and Services bid model pricing tables, three (3) Support Services bid model pricing tables, and nineteen (19) Solutions bid model pricing tables. The fields in the Equipment and Services bid model pricing tables are shown in the following table.

Table B.7-6. Equipment and Services Bid Model Pricing Tables

Field Name	Field Description
Yr	Contract Year (retrieved from Price_Data database)
Sale_Area	Area this product set will serve (retrieved from Price_Data database)
Sort_No	Numerical identifier of requirement (retrieved from Bid Model Solutions tables)
ID_Number	As specified in Product_Data database (retrieved from Bid Model Solutions tables)
Product	As specified in Product_Data database (retrieved from Bid Model Solutions tables)
Requirement	Requirements listed in table for specific bid model (retrieved from Bid Model Solutions tables)
Price_Unit	Price_Unit from (retrieved from Bid Model Solutions tables)
Quantity	Quantity for a specific requirement (retrieved from Bid Model Solutions tables)
Purch_Price	Price as listed in the Price_Data database
Purchase	Default value = 1 (retrieved from Bid Model Solutions tables)
Install_Price	Price as listed in the Price_Data database
Installation	Default value = 1 (retrieved from Bid Model Solutions tables)
Maint_Price	Price as listed in the Price_Data database
Maintenance	Default value = 1 (retrieved from Bid Model Solutions tables)
Opertn_Price	Price as listed in the Price_Data database
Operation	Default value = 0 (retrieved from Bid Model Solutions tables)
Ship_Handling_Price	Price as listed in the Price_Data database
Ship_Handling	Default value = 0 (retrieved from Bid Model Solutions tables)
Usage_Price	Price as listed in the Price_Data database
Usage	Default value = 0 (retrieved from Bid Model Solutions tables)
Recur_Price	Price as listed in the Price_Data database
Recurring	Default value = 0 (retrieved from Bid Model Solutions tables)
Ext_Price	Calculated based upon quantity, price fields, price decision fields

The fields in the Support Services bid model pricing tables are shown in the following table.

Table B.7-7. Support Services Bid Model Pricing Tables

Field Name	Field Description
Yr	Contract Year (retrieved from Price_Data database)
Sale_Area	Area this product set will serve (retrieved from Bid Model Solutions tables)
Sort_No	Numerical identifier of requirement (retrieved from Bid Model Solutions tables)
ID_Number	As specified in Product_Data database (retrieved from Bid Model Solutions tables)
Product	As specified in Product_Data database (retrieved from Bid Model Solutions tables)
Requirement	Requirements listed in table for specific bid model (retrieved from Bid Model

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Field Name	Field Description
	Solutions tables)
Price_Unit	According to Price_Unit from Price_Data database (retrieved from Bid Model Solutions tables)
Quantity	Quantity for a specific requirement (retrieved from Bid Model Solutions tables)
Hour_Price	Price as listed in the Price_Data database
Hour	Default value = 1 (retrieved from Bid Model Solutions tables)
Ext_Price	Calculated based upon quantity, price fields, price decision fields

The fields in the Solutions bid model pricing tables are shown in the following table.

Table B.7-8. Solutions Bid Model Pricing Tables

Field Name	Field Description
Yr	Contract Year (retrieved from Price_Data database)
Sale_Area	Area this product set will serve (retrieved from Bid Model Solutions tables)
Sort_No	Numerical identifier for requirement (retrieved from Bid Model Solutions tables)
Requirement	Requirements listed in table for specific bid model (retrieved from Bid Model Solutions tables)
ID_Number	As specified in Product_Data database (retrieved from Bid Model Solutions tables)
Product_Type_Name	As specified in Product_Data database (retrieved from Bid Model Solutions tables)
Price_Unit	According to Price_Unit from Price_Data database (retrieved from Bid Model Solutions tables)
Units	According to Price_Unit from Price_Data database (retrieved from Bid Model Solutions tables)
Quantity	Quantity for a specific requirement (retrieved from Bid Model Solutions tables)
Purch_Price	Price as listed in the Price_Data database
Purchase	0 or 1 (retrieved from Bid Model Solutions tables)
Install_Price	Price as listed in the Price_Data database
Installation	0 or 1 (retrieved from Bid Model Solutions tables)
Maint_Price	Price as listed in the Price_Data database
Maintenance	0 or 1 (retrieved from Bid Model Solutions tables)
Opertn_Price	Price as listed in the Price_Data database
Operation	0 or 1 (retrieved from Bid Model Solutions tables)
Ship_Handling_Price	Price as listed in the Price_Data database
Ship_Handling	0 or 1 (retrieved from Bid Model Solutions tables)
Usage_Price	Price as listed in the Price_Data database
Usage	0 or 1 (retrieved from Bid Model Solutions tables)
Recur_Price	Price as listed in the Price_Data database
Recurring	0 or 1 (retrieved from Bid Model Solutions tables)
Annual_Price	0 or 1 (retrieved from Bid Model Solutions tables)
Annual	Price as listed in the Price_Data database
Hour_Price	0 or 1 (retrieved from Bid Model Solutions tables)
Hour	Price as listed in the Price_Data database
Ext_Price	Calculated based upon quantity, price fields, price decision fields

B.7.5 Total Evaluated Price

The total proposed Bid Model price for each category offered for National proposals and for each subcategory offered for Global and State proposals shall be identified, including any applicable additional discounts.

The offeror shall provide Total Evaluated Price data in the Bid_Model_Summary table, located in the Master_Control database. The Ext_Price in the bid model pricing tables shall be summed by year for each sale area and inserted into the table. In addition, the eight years of Evaluated Price shall be totaled and inserted into a record in the Bid_Model_Summary table in which the value for the “yr” field = “all”. An automated process has been provided via the Main Menu for performing bid model calculations (see the document “Bid Model Instructions”). The fields in the Bid_Model_Summary table are listed in the table below.

Table B.7-9. Bid_Model_Summary Table

Field Name	Field Description
Model_name	Bid Model Pricing table name
Sale_Area	Area served
Yr	Contract Year
Calculated_Price	Total Evaluated Price by Contract Yr and by 8-yr Total

In the proposal price volume (Section 5, Volume IV), the offeror shall provide a statement of the total evaluated price by sale area for each of the applicable Bid Models defined for the sub-category(ies) proposed. The statement of total evaluated price shall contain the total evaluated price for each contract year and an aggregate for all years in the base period and all option periods.

Section C: Descriptions/Specifications/Work Statement

C.1 INTRODUCTION

The General Services Administration (GSA), Federal Technology Service (FTS), Regional Services Program currently provides a wide range of legacy and new technology products and resold services, maintenance and operation, integration, and consulting services through a multitude of vehicles.

To leverage expertise and resources, FTS devised a worldwide telecommunications infrastructure acquisition to cover the replacement of expiring regional equipment and services contracts as well as facilitate the convergence of voice, data, and video solutions in the Federal workspace.

"CONNECTIONS" contracts will provide flexible, multiple award contracts that will:

1. Provide telecommunications equipment and services for customers within the Federal workspace, today and in the future, with a variety of procurement options (e.g., *a la carte* or full service delivery);
2. Be used in conjunction with other Government sources of supply to provide customized solutions that meet unique customer requirements; and
3. Include emerging technologies that facilitate the convergence of voice, data, and video in the workspace and interface with next generation networks.

C.1.1 Objective

The objective of the GSA's CONNECTIONS acquisition is to provide customers with a broad range of telecommunications equipment and services to support building and campus communications infrastructure needs worldwide.

CONNECTIONS contracts offer flexibility and choice by providing equipment, labor, and turnkey solutions to meet a variety of telecommunications infrastructure requirements. In addition, the contracts are designed to respond to the customers' buying patterns, which can be local, national, or global in scope.

A CONNECTIONS contract provides connectivity or CONNECTIONS from the user's desktop to the point of interconnection to the customer's network service providers.

The term “customer” includes all Federal agencies, authorized Federal contractors, and agency-sponsored universities and laboratories authorized by law or regulation to acquire equipment and services using a Federal contract. GSA reserves the right to add customers at any time during the term of the contract in accordance with GSA Order ADM 4800.2E (as updated).

The customer will order telecommunications equipment and services directly from the contractor and may, at his option, be billed directly or enter into an agreement with GSA for value added service whereby GSA would handle billing and payment, referred to herein as "centralized billing."

Contractors will have more freedom to respond to the customer’s requirements, providing commercial-off-the-shelf solutions or customized solutions as appropriate. Customers can “mix and match,” by purchasing individual pieces of equipment and making their own arrangements for installation, integration, and maintenance, or instead by purchasing a turnkey solution where the contractor can design, provision, install, operate, and maintain a total solution.

Customers will have greater choice. The Government will make initial awards in a tiered, phased manner. However, the Government reserves the right to make additional awards as necessary to meet the breadth and depth requirements of this acquisition. Subsequent awards after the first in a category will be made in accordance with the Government’s best interests. Ultimately, the total number of awards will be determined by the Government’s assessment of the most advantageous approach for accomplishing the goals of providing customers with a broad range of telecommunications equipment and services to support building and campus communications infrastructure needs worldwide while maintaining a manageable number of contractors.

The program will be E-business friendly. An Internet-based approach will allow contractors to establish appropriate ordering, billing, and customer service arrangements and more easily incorporate best E-business practices. The contractor is encouraged to use the same operations support systems (OSSs) as its uses to support its commercial customers.

C.1.2 Scope

The scope of a CONNECTIONS contract may include, but is not limited to, the following equipment and services that support the Government’s telecommunications infrastructure:

- User station equipment
- Switching equipment (circuit switched or packet switched (e.g., Internet Protocol (IP) or Asynchronous Transfer Mode (ATM) based))
- Distribution systems (cabling and wiring and associated support structures and

services)

- Voice mail systems
- Call center systems
- Voice and video conferencing systems
- In-building paging systems
- Data communications equipment
- Microwave systems (e.g., wireless LANs and Local Multipoint Distribution Systems (LMDSs))
- Converged systems (e.g., voice over IP (VoIP), Computer Telephone Integration (CTI), and Unified Messaging Systems (UMSs))
- Customized packaged solutions that enhance the agency's telecommunications infrastructure
- Labor categories (professional, technical, and/or E-business personnel)

Network services, including services that provide transport and access to the customer site, such as those provided by local exchange carriers, competitive local exchange carriers, cellular telephone carriers, interexchange carriers, or Internet service providers, are out of scope.

The technical scope has been divided into three categories in this Statement of Work (SOW):

1. **Equipment and Services.** This category addresses the customer's need to acquire commercial off-the-shelf telecommunications equipment and services and the installation, operations, and maintenance associated with that equipment.
2. **Support Services.** This category addresses the customer's need to obtain skilled labor to define requirements, assess alternatives, design solutions, and install, operate, upgrade, maintain, and deinstall equipment and services.
3. **Solutions.** The contractor may propose solutions to a customer's unique infrastructure-related requirements using commercially available products and services or customized approaches. For example, the contractor shall be capable of establishing the telecommunications infrastructure of a new building, moving the customer to a new location, or upgrading the customer's legacy telecommunications infrastructure to provide converged voice/data/video services to the desktop. The contractor shall be capable of providing complete solutions within its chosen field of expertise using appropriate combinations of equipment and services that fully satisfy the customer.

The Government anticipates awarding CONNECTIONS contracts in three geographic areas:

1. **National contracts** - will be awarded to contractors who provide equipment and services to an area that consists of the 50 U.S. states, the District of Columbia, American Samoa, the Virgin Islands, Guam, Puerto Rico, Saipan, and the remaining Northern Mariana Islands.
2. **Global contracts** - serve a geographic area that consists of one or more foreign countries or territories.
3. **State contracts** – serve an area chosen by the contractor that consists of one or more states in the U.S., the District of Columbia, American Samoa, the Virgin Islands, Guam, Puerto Rico, Saipan, or the remaining Northern Mariana Islands.

National contractors shall meet all of the functional requirements specified within the Equipment and Services, Support Services, and/or the Solutions category of this SOW; i.e., National contractors shall support one, two, or all three of these categories and all of the associated subcategories. Global and State contractors shall meet all of the functional requirements of at least one of the following subcategories, which are written in italics under the associated categories:

1. Equipment and Services

- a. *Voice equipment*
- b. *Data equipment*
- c. *Video equipment*

2. Support Services

- a. *Professional series*
- b. *Technical series*
- c. *E-business series*

3. Solutions - To provide complete solutions within its area of expertise, the contractor shall obtain appropriate skilled labor to provide the following support to each subcategory of Solutions work that they offer:

- Consulting,
- Systems integration,
- Installation and testing, and

- Operations support.

The Solutions subcategories are as follows:

- Voice communications*
- Data communications*
- Cable and wire management*
- Voice and video conferencing*
- Billing and account management*
- Customer service and technical support*
- Other solutions as proposed*

Contractors must meet the minimum requirements for at least one of these subcategories to win an award. However, offerors and contractors are encouraged to propose additional subcategories that are within their area of core competence and to establish teaming arrangements as necessary to provide complete, responsive solutions. The Government may add new subcategories when it is in the Government's best interests.

In accordance with Section M, offerors will improve their chances for an award by increasing the breadth and depth of their proposal. All other things being equal, a proposal that offers more functionality than required (e.g., a product line that provides more relevant functionality than required by the Equipment and Services category and, perhaps, uses multiple acceptable Original Equipment Manufacturers (OEMs) or more relevant skill categories than required by the Support Services category) will have increased breadth. Similarly, a proposal that addresses more relevant requirements within a specified functional area (e.g., a product line that meets a greater range of customer requirements within a required functional area or offers multiple skill levels within a required area of expertise) will have increased depth.

Contractors may offer as many different kinds of equipment and services as they can support in the areas they choose to serve. Partnering is encouraged. The contractor may use one set of OEMs and subcontractors in one area and a different set in another. They may use multiple OEMs to provide similar equipment in the same area. They may provide different categories or subcategories of equipment and services in the different areas that they serve. They may price the same equipment and services differently in the different areas they serve.

C.1.3 Description of the Program

The first contracts will be awarded to National contractors, who shall serve all 50 U.S. states, the District of Columbia, and American Samoa, the Virgin Islands, Guam, Puerto Rico, Saipan, and the remaining Northern Mariana Islands. There will be National awards in the

Equipment and Services, Support Services, and Solutions categories before the Government awards Global and then State contracts as shown in Figure C.1-1. The Government intends to make multiple awards. The Government may prioritize the states or global areas to be addressed by the offerors when it is in the Government's best interests. For example, Requests for Proposals to serve states may be released in several phases to solicit proposals addressed to different states or groups of states.

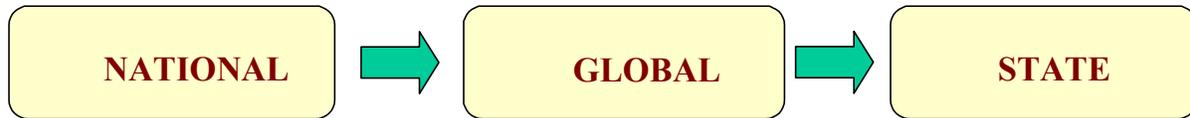


Figure C.1-1. Award Sequence

The categories and subcategories are summarized in Figure C.1-2.

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Category 1 Equipment and Services	Category 2 Support Services	Category 3 Solutions
Voice* (circuit and packet-based telephones, PBXs, multiplexers, automatic call distribution systems, unified messaging systems, etc.)	Professional Series (Program Manager, System Integration Engineer, Information Assurance Engineer, etc.)	Voice Communications (Complete solutions that involve the installation, operation, and maintenance of PBXs, wireless PBXs, VoIP or other voice over packet systems, microwave systems, or messaging systems.)
Data* (concentrators, routers, switches, Virtual Private Network equipment, etc)	Technical Series (Project Manager, Operation Systems Manager, Cable Splicer, etc.)	Data Communications (Complete solutions that involve the installation, operation, and maintenance of LANs, wireless LANs, or messaging systems.)
Video* (codecs, inverse multiplexers, etc.)	E-Business Series (Web Architect, Webmaster, E-Business Engineer, etc.)	Cable and Wire Management (Complete solutions that involve the installation of cabling and wiring in accordance with the requirements of Section C.3.5.2 as well as managing the agency's legacy cable and wiring systems.)
		Voice and Video Conferencing (Complete solutions that involve the installation, operation, and maintenance of video conferencing systems that terminate at a desktop, conference room, or portable terminal as well as voice conferencing systems that operate within a building or a campus environment.)
		Billing and Account Management (Complete solutions in accordance with the requirements of Section C.4.1.4.6. They shall be capable of supporting customers that are making the transition from a centralized to a direct billing arrangement, including the establishment and operation of billing verification functions.)
		Customer Service and Technical Support (Complete solutions in accordance with the requirements of Section C.4.1.4.10. They shall be capable of developing and operating a Help Desk, maintaining the customer's Web page and bulletin boards, and executing moves, adds, and changes.)
		Other Solutions As Proposed. (Additional solutions / subcategories within scope that may be the basis of subsequent competitive Connections awards.)

* Note: **Supporting Equipment and Services** (which includes cabling and wiring, power systems, equipment racks, cross connection panels, etc.) is not a separate subcategory; however, offerors bidding in the Voice, Data, or Video sub-categories should propose associated supporting equipment as part of their Equipment and Services sub-category proposal. Supporting Equipment and Services is considered to be a set of enabling capabilities necessary for the delivery of products and services in the Voice, Data, and Video subcategories."

Figure C.1-2. Categories and Subcategories

The pricing section (Section B) mirrors this SOW. ID_Numbers defined in Section B uniquely identify the work elements that have been incorporated into the contract. Items not specifically incorporated into Section B may be proposed in response to an order request under Other Direct Costs (ODC), provided that the items proposed fall within the scope of the applicable contract category as set forth in Section C; the DAO determines the ODC prices are fair and reasonable using the policies and methods set forth in FAR Subparts 15.4 and 16.505(b); and the ODCs are within the maximum allowable amounts established for the applicable category by H.30 Other Direct Costs.

The contracts are indefinite delivery/indefinite quantity (ID/IQ), fixed-price contracts.

C.1.4 Reserved

C.1.5 Organization of this Statement of Work

Functional requirements for Equipment and Services, Support Services, and Solutions are specified in Sections C.3, C.4, and C.5, respectively. Mandatory requirements that apply no matter what the contractor provides are specified in Section C.2. The acronyms used in this RFP and a Glossary are provided in Sections J.12 and J.13, respectively.

C.2 MANDATORY REQUIREMENTS

C.2.1 General

The contractor shall provide equipment and services that are responsive to the customer's requirements. They shall be fast, easy-to-use, and of high quality and value. The contractor shall negotiate directly with the customer to determine the appropriate solution to its requirements.

C.2.2 Online, Internet-Accessible, Browser-Based Infrastructure

The contractor shall have an online, Internet-accessible (through a contractor-provided secure server), browser-based infrastructure that supports the requirements for ordering, billing, trouble reporting, and customer service. The contractor also shall have a manual backup system in the event the online system is unavailable. The contractor shall enable the Designated Agency Official (DAO) to submit orders in accordance with the specifications of Section G using the following media:

1. Online, Internet-accessible, browser-based infrastructure
2. Electronic mail
3. Facsimile

4. Telephone

The Government expects contractors to use the same infrastructure that they use to support their commercial customers. The contractor is encouraged to incorporate best E-business practices in meeting customer requirements.

C.2.2.1 Ordering

The contractor shall respond to orders¹ issued directly by the DAO. The contractor shall maintain a means for customers to obtain price quotes, place orders, track orders, change or discontinue them via an online, Internet-accessible, browser-based system. The required level of support shall include home page development, design, maintenance, and updates of CONNECTIONS equipment and services within one business day after any contractual changes are approved by GSA.

The ordering process shall, at a minimum, meet the following functional requirements:

1. **Provided price quotes.** The contractor shall provide price quotes within five business days or as specified in the order. If more time is required, the contractor shall negotiate a date to provide the quote with the customer.
2. **Process orders.** The system shall acknowledge receipt of an order within one hour of receiving it. If additional information from the Government is required before processing can be completed, the contractor shall notify the DAO within two business days after receipt of the order and shall specify the required information and action to be provided by the Government.
3. **Track orders.** The contractor shall provide a means for the customer to verify the status of an order from the time that the contractor acknowledges receipt to the contract expiration date. The contractor shall assign a unique identification number to each order.
4. **Accept equipment or service.** When equipment or service is accepted in accordance with the requirements of Section E (Inspection and Acceptance), the contractor shall provide the customer with an electronic order completion acknowledgement within one business day.
5. **Change orders.** The customer has the right to cancel, modify, or change the due date or any other parameters of an order at any time prior to the acceptance of that order.

¹ Throughout this Statement of Work, the term “order” may mean “delivery order” or “task order” as defined in FAR 2.101.

If an order is changed prior to the start of work, no charge shall apply. If the order is changed after the start of work, a one-time order change charge may apply. If an order is canceled after the start of work, the contractor may charge its actual direct and indirect expenses of service installation incurred up to the order change date. The total charge shall not exceed the Install_Price for that order defined in the Section B price tables.

6. Discontinue orders. Upon request of the customer, the contractor shall discontinue service ordered under the contract. Service shall be discontinued no earlier than the date specified by the customer's order. Notice should be given to the contractor at least ten days prior to the requested termination date. No payment will be made by the Government for services rendered after the termination date.

The contractor shall recommend an order format for review and approval by the Procuring Contracting Officer (PCO). The content of an order shall meet the minimum requirements prescribed in Section G. After contract award, the contractor shall provide 60 days' advance notice of any changes in the order format and content for review and approval by the Administrative Contracting Officer (ACO) and provide any appropriate retraining to DAOs. Orders may be issued under this contract from the Notice to Proceed through the expiration date of the contract. All orders issued under this contract are subject to the terms and conditions of the contract. All orders issued prior to expiration of the contract shall be honored and performed by the contractor, provided that the contractor shall not be required to make any deliveries under this contract after the completion date specified in the order. Copies of all orders shall be maintained by the contractor for the length of the contract and shall be available for Government inspection within 10 business days after the Government's formal request. Archived information shall be provided in a mutually acceptable format.

C.2.2.2 Billing

The contractor shall bill in arrears on a monthly basis by the agreed due date. The contractor shall directly bill each customer at the address given by the customer in the order and shall have the capability to centrally bill designated customers. The concepts of direct and centralized billing are defined below and illustrated in Figure C.2-1:

1. **Centralized Billing:** The contractor shall bill GSA via a machine-readable billing file prepared for centrally-billed customers only and provide supporting data for verifying charges. A suggested format for centralized billing files is described in Section G.7.1.3. GSA will pay the centralized bill.
2. **Direct Billing:** The contractor shall bill each customer cost center that is using direct billing and provide supporting billing data. Each such customer will verify the bill and directly pay the contractor.

Customers will decide whether they want direct billing or centralized billing and will notify the contractor via their task orders. If the contractor has not already implemented a centralized billing capability with GSA, the contractor shall coordinate with GSA to determine if it is feasible to establish such an arrangement. If not, GSA will coordinate with the customer to establish a satisfactory alternative arrangement.

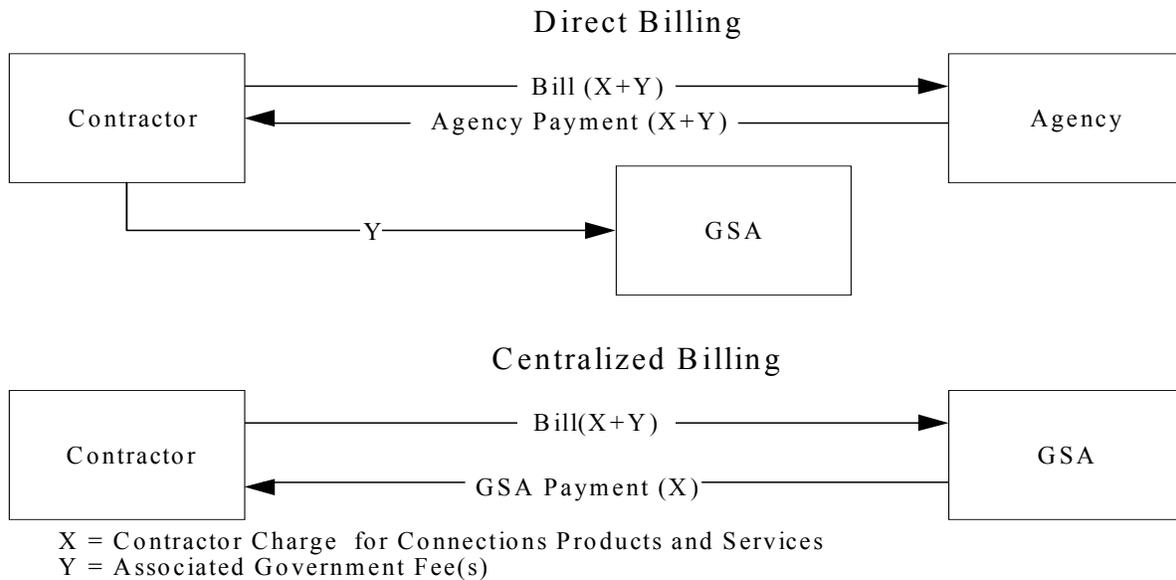
The contractor shall be responsible for the collection of charges from directly billed CONNECTIONS customers. GSA is not responsible for any charges directly billed to any CONNECTIONS customer. GSA is responsible for the collection of charges from centrally billed customers.

A monthly composite bill for all CONNECTIONS customers, direct-billed or centrally-billed, shall be sent to GSA at the address below:

GSA Billing Office

(Will be specified at the time of the Notice to Proceed)

Figure C.2-1. Direct and Centralized Billing



Each bill shall reflect all charges from the first to the last day of the billing cycle. The contractor shall charge for all equipment and services delivered under the contract. The format and content of the bill shall comply with the specifications of Section G.7. Monthly

charges shall include the Associated Government Fee(s) in accordance with the provisions of Section G.7.2. The contractor shall provide at least 60 calendar days' written notice to the Government before making changes to the format or content of the bill.

The Government requires evidence that each charge has been properly authorized and priced correctly, or it may dispute the charge. The Government reserves the right to withhold a partial or entire payment of a bill in dispute as detailed in Section I. The contractor shall ensure that each bill, including the composite bill to GSA, contains all pricing components in sufficient detail to allow the customer to reconcile charges with completed orders. The contractor shall ensure that all charges, credits, and debits are shown on the bill and that no additional data are required by the Government to verify the price of an item of equipment or service and to verify the amount of discounts, credits, or debits. In calculating applicable taxes, the contractor shall not impose taxes on the Associated Government Fee(s) (see Section G.7.2).

The contractor shall bill nonrecurring charges in one lump sum following acceptance by the customer of the equipment and services contained in the completed order. The contractor shall indicate waived or discounted charges on the bill.

For other reimbursable charges, such as ODCs, the contractor shall ensure that the bills reflect the contractor's actual charges for a specific order. The Government will not pay any charges that are not agreed upon between the contractor and the customer and that are not specifically stated in the order.

The contractor shall be capable of delivering bills and billing verification data to GSA and the customers electronically for viewing and file transfer using a format and a medium that are acceptable to the Government and the contractor. When requested by a customer or GSA, the contractor shall provide the agreed billing and billing verification data via File Transfer Protocol (FTP) file transmission or CD-ROMs.

C.2.2.3 Training

The contractor shall provide training as specified in the order. Tasks may include courseware development and instructing customer personnel. Training methods may include formal classroom training, interactive video, computer-assisted training, Internet-based training, individual tutoring, and other methods specified in the order. Unless otherwise specified in the order, training shall be completed within five business days after the equipment or service is accepted; and class size for classroom training shall be limited to 20 students.

C.2.2.4 Customer Service

Unless otherwise specified in the order, users shall be able to access the contractor's customer service function during Normal Business Day as defined in Section C.2.3 by dialing a toll-free number or by accessing the contractor's Web page. These access points shall be the customer's primary points of contact with the contractor for operational issues. The contractor's customer service function shall assist users experiencing difficulty and shall provide training where required. The contractor also shall make customer service representatives available to users for requirements planning, acquisition support, or billing reconciliation.

C.2.2.5 Trouble Handling

Trouble handling includes the procedures for trouble reporting, diagnosing and clearing troubles by telephone, E-mail, or the World Wide Web, tracking, and escalation to ensure that problems are resolved in a timely manner. By definition, a "trouble" is a report entered by the contractor (based perhaps on a user's complaint) regarding a possible failure of an item of equipment, system, or service provided under the CONNECTIONS contract or any other issue raised by the customer that may require the assistance of the contractor.

The contractor shall describe the proposed trouble-handling process. Included in this process shall be a means for CONNECTIONS users to track the status of complaints reported to the contractor online. The contractor shall be able to receive users' complaints by toll-free telephone, electronic mail, facsimile, and via the Web. If the contractor decides to open a trouble report based on the customer's complaint, the customer shall receive from the contractor a trouble ticket number and a copy of that trouble ticket as entered. Upon resolution of the trouble ticket, the customer shall receive a complete copy of the trouble report, including a description of the action taken to resolve the problem within two business days. The contractor shall enter trouble tickets in the system and notify the customer of failures and problems that were discovered by the contractor, for example through Simple Network Management Protocol (SNMP) alerts of failed pieces of equipment. The contractor shall update the status of a trouble report within two hours after a change occurs.

The contractor shall provide a single point of contact for reporting complaints. Users shall be able to submit their complaints to the Trouble Handling Desk 24 hours a day, seven days a week, 52 weeks a year, and shall be able to learn the status of a trouble report previously entered into the contractor's system during the Normal Business by calling the Customer Service Center.

The contractor shall propose and provide an escalation procedure, with appropriate time intervals, for each category of work provided under this contract. Point of contact names,

titles, telephone numbers, electronic mail addresses, and facsimile numbers shall be provided to the ACO and the DAOs. The draft escalation procedure shall be submitted with the Technical and Management Volume for review and approval by the PCO. The first approved *Escalation Procedures Report* shall be due within 30 days after the Notice to Proceed. Changes to the point of contact information shall be provided to the ACO and DAOs within one business day when changes are made.

The contractor shall be responsible for coordinating trouble isolation and repair efforts within the contractor’s organization, between other contractors who may be involved in resolving the problem, and the DAOs. The contractor shall escalate all troubles not resolved in the required time frames and shall stay actively involved with the trouble resolution process from start to completion.

C.2.3 Hours of Operation

The Normal Business Day (NBD) is from 7:00 A.M. to 7:00 PM local time in the area(s) of award, Mondays through Fridays, exclusive of Federal holidays, except as otherwise noted in the order. For example, it may not be necessary for a Support Services contractor to operate 12 hours a day.

The contractor shall be capable of providing different levels of support to different locations or to different functions, including the following:

Table C.2-1. Possible Hours of Operation

Support Code	Description
24x7x52	Continuous round the clock support available through a single call center phone number 24 hours per day, seven days per week, 52 weeks per year
24x7x52P	Continuous round the clock support available through a single paging phone number
24x7x52M	Continuous round the clock support available through multiple phone numbers depending upon time of day/day of week
24x5x52	Continuous round the clock support available Monday through Friday only, excluding holidays
12x5x52	Support available through the Normal Business Day
	Additional support codes as required by the order

For example, the contractor shall be capable of providing access to its customer service

function on a 24 x 7 x 52 basis.

C.2.4 Accessibility to the Handicapped

At the user interface, the contractor shall provide equipment and services that meet with the following functional performance criteria for 36 CFR Part 1194.31 of the Rehabilitation Act:

1. At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for assistive technology used by people who are blind or visually impaired shall be provided.
2. At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for assistive technology used by people who are visually impaired shall be provided.
3. At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for assistive technology used by people who are deaf or hard of hearing shall be provided.
4. Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.
5. At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for assistive technology used by people with disabilities shall be provided.
6. At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.

Additional information regarding this accessibility requirement may be found at <http://www.section508.gov>.

C.2.5 Security

The contractor shall ensure that user access to the contractor's operations support systems is protected by requiring a login to access applications and shall ensure that only users with a valid account and password can perform management tasks.

C.2.6 Safety Standards

For National and State contracts, the contractor and all of its personnel and subcontractors shall adhere to applicable standards in Public Law 91-596, 1926.956, 1910.146 Occupational

Safety and Health Administration (OSHA), Telecommunication Standard 29 Code of Federal Regulations (CFR) 1910.268, the National Electric Code, the National Fire Protection Association, as well as local safety regulations for the site specified in the order. For Global contracts, the contractor shall adhere to the safety regulations that apply to the area under consideration or that are specified in the order.

C.2.7 Permits and Licenses

Unless otherwise specified in the order, the contractor shall obtain necessary permits and licenses to perform the work specified, including necessary approvals from the building owner or landlord.

C.2.8 Code Compliance

All work done by the contractor under this contract shall comply with all local codes that are applicable to the area served.

C.2.9 Conformity to Codes, Regulations, and Standards

Throughout this SOW, references are made to codes, regulations, and standards (e.g., the interim standards and Internet Engineering Task Force [IETF] Requests for Comments [RFCs], which are *de facto* standards in the world of Internet engineering) as they exist at the time of issuing this RFP. The contractor shall comply with the latest versions of these codes, regulations, and standards throughout the duration of the contract. If a question arises regarding which codes, regulations, or standards to apply to a particular order, the contractor shall seek clarification from the ordering agency prior to filling the order.

C.3 EQUIPMENT AND SERVICES

The Government's functional requirements for voice, data, video, and support services and equipment are specified herein. Any device that incorporates the required functionality meets the requirement. Required functionality rather than specific hardware requirements are specified in this SOW, although hardware and software requirements may be specified in detail in subsequent orders.

Technical information that supports the offeror's technical proposal may be backed up with information in the Technical Literature Volume. The Government will use this literature to verify characteristics and performance claims made in the proposal descriptions (e.g., compliance with standards). Guidance regarding the preparation of the Technical Literature Volume may be found in Section L.16.3

C.3.1 General Requirements

The contractor shall meet the following general requirements in providing, installing, operating, and maintaining required equipment and services:

C.3.1.1 Commercial Off-The-Shelf (COTS)

All equipment and services shall be commercially available “off-the-shelf” items requiring no further development and shall have been fully tested or demonstrated in a commercial environment unless otherwise specified in the order.

C.3.1.2 Performance and Quality

It is desirable that equipment delivered under this contract complies with International Organization for Standardization 9000 (ISO 9000) standards.

The reliability of equipment delivered under this contract shall be specified in the orders. (The default value is 99.95%.) The contractor shall supply Mean Time Between Failure (MTBF) and Mean Time to Repair (MTTR) data (if available) to allow calculation of the serial reliability of the system supported by the equipment delivered and ensure its proper functioning. The contractor shall be capable of providing reliability calculations for the systems delivered under this contract. If so tasked, Telcordia standard SR-332 “Reliability Prediction for Electronic Equipment” shall be used.

The contractor shall comply with the maintenance response times specified in Section F.

The contractor shall be capable of committing to a specified performance level and/or quality of service level in a Service Level Agreement (SLA). The SLA may include network metrics (e.g., availability, response time), billing metrics (e.g., the error rate of charges billed under the contract), customer service metrics (e.g., the percentage of calls to the contractor’s customer service function that were answered in less than 30 seconds), and security metrics (e.g., the probability of detecting attempted intrusions into the system and the associated false-alarm rate). The contractor shall describe to the customer how the data will be collected and provided to the customer and provide an acceptable reporting mechanism that tracks the requirements agreed to in the SLA.

Basic requirements for the SLA may include but are not limited to:

1. A specified level of customer support
2. Overall system availability
3. Overall system response time

4. Maximum system restoration time
5. Provisions for system security
6. Negative incentives for under performance

C.3.1.3 Environmental Constraints

The contractor shall provide components that will operate satisfactorily under environmental conditions that apply to the area under consideration or as specified in the order.

C.3.1.4 Electromagnetic Compatibility

For National and State contracts, the equipment shall meet National Electric Code (NEC) 725-2(b), UL 478, 910, FCC electromagnetic compatibility requirements, and FCC Part 15 requirements. For Global contracts, the equipment shall conform to the area and local standards that apply.

C.3.1.5 Inventory Management

The contractor shall establish and maintain an *Inventory File* of all equipment purchased by the Government under this contract. Each record of this file shall include the Original Equipment Manufacturer's name and contact number, maintenance contractor's name and local repair number, the date of acceptance, the date maintenance was performed (if available), a description of the maintenance action (if available), and the date that the warranty ends. The customer may task the contractor to store other information in this file in accordance with Section C.4.1.4.4.

Authorized customer representatives shall have real-time access to this *Inventory File*.

C.3.1.6 Accessibility to the Handicapped

Equipment and services delivered under this contract shall meet the applicable technical provisions of the Access Board found at 36 CFR 1194, parts B, C and D of the Rehabilitation Act or provide equivalent facilitation. The contractor shall describe the proposed equipment and services that are to be supplied and indicate whether the equipment and services meet the technical provisions of 36 CFR Part 1194. If the contractor's equipment and services meet the technical provisions of 36 CFR Part 1194, the contractor shall indicate where full details on accessibility can be found (e.g., contractor's or other exact website location).

Equipment and services provided at the user interface shall include provision of equipment and services that meet the technical provisions of 36 CFR Part 1194. The equipment and services provided by this solicitation shall have the following capabilities:

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1. Telecommunications products or systems which provide a function allowing voice communication and which do not themselves provide a teletype (TTY) functionality shall provide a standard non-acoustic connection point for TTYS. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.
2. Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.
3. Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYS, and for users who cannot see displays.
4. For transmitted voice signals, telecommunications products shall provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, at least one intermediate step of 12 dB of gain shall be provided.
5. If the telecommunications product allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.
6. Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.
7. Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications product.
8. Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.
9. Products which have mechanically operated controls or keys shall comply with the following:
 - a. Controls and keys shall be tactilely discernible without activating the controls or keys.
 - b. Controls and keys shall be operable with one hand and shall not require tight

grasping, pinching, or twisting of the wrist. The force required to activate controls and keys shall be five pounds maximum.

- c. If key repeat is supported, the delay before repeat shall be adjustable to at least two seconds. Key repeat rate shall be adjustable to two seconds per character.
 - d. The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.
10. Mailboxes shall meet the technical provisions of 36 CFR 1194 and shall provide the following voice mail capabilities:
- a. Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.
 - b. Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval, shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.

Additional information regarding this accessibility requirement may be found at <http://www.section508.gov>.

C.3.1.7 Encryption

The contractor shall be capable of providing equipment and software to encrypt both voice and data traffic. If so tasked, the encryption algorithm shall use the Triple DES (Data Encryption Standard) [Federal Information Processing Standard (FIPS 46-3)] and the implementation (cryptographic module(s)) shall be FIPS 140-1 certified. When the new Advanced Encryption Standard (AES) being developed by the National Institute of Standards is approved for use, the contractor shall provide the capability to use AES for encryption. The contractor shall comply with the COMmunications SECurity (COMSEC) Rules and Regulations specified in the order, if any, in handling classified information.

C.3.1.8 Special International Requirements

Equipment sold under the CONNECTIONS contract to serve in foreign countries or territories shall meet several additional requirements:

1. **Homologation.** Homologation is the process of certifying a particular component part/system/technical unit with the appropriate Government agency in that country or territory. Every country has telecommunication laws that prohibit the connection of unapproved telecommunication devices to the local phone system. Equipment to be sold or used in a foreign country under the CONNECTIONS contract shall be approved

for use in that country, meaning that they shall be “homologated” in that country if necessary.

2. **International Interfaces.** The contractor shall be capable of providing equipment that uses E1 (2.048 Megabits per second (Mbps)), E3 (34.368 Mbps), and other required international interfaces in selected global areas as required in accordance with ITU-TS G.702.

C.3.1.9 Installation and Testing

The contractor shall provide a price for installing and testing equipment delivered under this contract in accordance with the provisions of Section B. If so tasked, the contractor shall submit a draft *Acceptance Test Plan* to the Designated Agency Official of all proposed equipment, services, and systems to be tested for Government review and approval within 30 days after task order award. Upon approval, the contractor shall prepare a final *Acceptance Test Plan* and forward it to the DAO no later than 30 days prior to the start of acceptance testing.

If so tasked, the contractor shall adhere to the specifications of the OEM for the area under consideration and shall install and test all equipment and systems in accordance with accepted industry standards that apply to the area under consideration. The contractor shall clear, correct, and restore any components or subsystems that fail the acceptance tests and shall submit one set of as-built drawings to the DAO within 30 days after the installation is completed.

C.3.1.10 Maintenance

The contractor shall provide a price for maintaining equipment delivered under this contract in accordance with the provisions of Section B. If so tasked, the contractor shall periodically test any or all equipment, supplies, and services delivered under this contract and repair this equipment and associated support system hardware and software as necessary, including upgrades. If the contractor discontinues a particular item of equipment, the contractor shall continue to maintain it for a period of at least one year or as otherwise specified in the order. Preventive maintenance shall be conducted in accordance with the OEM’s specifications.

The contractor may choose to accept an order to maintain specified Customer Premises Equipment (CPE). If so, then within five business days after receipt of a customer's request to maintain an item of CPE or a category of CPE (which may not have been purchased from the contractor), the contractor shall arrange with the requesting customer to establish a completion date for examination of the equipment that has been tendered for maintenance support. The completion date for examination shall be no later than one month after receipt of the maintenance request except when the customer agrees to a later date. The contractor

shall formally notify the customer of any equipment that in the contractor's opinion is not in good operating condition and therefore is not acceptable for maintenance support under this contract and shall state the reasons for the rejection. Failure to so notify the customer within five business days after the agreed examination completion date shall constitute acceptance by the contractor of all equipment listed in the order.

When the contractor has examined equipment that has been tendered for maintenance support and has concluded that the equipment is conditionally acceptable only after repair, the contractor shall be capable of providing the customer with an estimate for the cost of repair. The customer will advise the contractor if the repair is authorized; and, if so, will issue an order to do the work.

C.3.1.11 Warranty Service

The contractor shall provide warranty service for systems and equipment provided or installed under this contract. The contractor shall provide, at no additional cost to the Government, a minimum one-year system warranty (or the warranty provided by the OEM, whichever is longer) for all hardware and software purchased under this contract, including all equipment supplied, installed, and integrated by the contractor. The equipment warranty shall provide for repair and distribution of updated software to all users who purchased the software under this contract. The contractor shall provide to the DAO for his review and approval a written description of the warranty service associated with each product and service delivered under the contract at the time of acceptance.

The contractor shall repair or replace malfunctioning equipment covered by warranty within five business days or as specified in the order. The contractor shall provide to the Government a point of contact for the warranty during the Normal Business Day (or for a longer period if so specified in the order. See Section C.2.4.) The warranty shall begin at the time the final system acceptance form is signed in accordance with Section E (Inspection and Acceptance).

C.3.1.12 Spares Inventory

The contractor shall be responsible for providing spare parts during the warranty period at no additional cost to the Government. The contractor, at the contractor's expense, shall replenish spares that are used to provide warranty service.

The contractor shall be capable of providing spare parts and be responsible for spares inventory or replenishment for all contractor-furnished and installed equipment and services. The contractor shall be capable of providing a *Recommended Spare Parts List* for each

system. This list shall include part description, part number, manufacturer, address, phone number, and recommended quantities.

The contractor may be tasked with providing an *Equipment Integrated Logistics Plan* to cover the issue of sparing. This plan should include a methodology for providing the needed spares and protection for the network to avoid long delays in obtaining parts.

The customer may choose to purchase spare parts and retain these spares on site. Such spares shall be purchased at the customer's expense.

C.3.2 Voice Equipment Requirements

C.3.2.1 Telephone Station Instruments

Telephone station instruments provided under this contract shall be equal to or better than the telephones commonly used in commercial applications in quality, design, construction, and performance and shall comply with the requirements of Section 508 of Americans with Disabilities Act (see Section C.3.1.6).

C.3.2.2 Switches

C.3.2.2.1 Private Branch Exchanges

Private Branch Exchanges (PBXs) provided under this contract shall have an analog and digital interface that is compatible with the local exchange services that are available in the area under consideration and shall comply with applicable commercial standards and practices. At a minimum, PBXs provided under this contract shall be capable of providing the features listed in Table C.3.1 when interfacing with the central office (CO) using digital or analog lines and trunks. The customer who orders any of these features shall have the capability of activating or deactivating any or all of them without outside assistance via a software reconfiguration.

The contractor also shall be capable of providing "PC PBXs" (also known as "mini-PBXs"), PBXs that are based in a Personal Computer (PC). PC PBXs enable PC-to-PC, phone-to-PC, and PC-to-phone calls via IP packet services and gateways. The subset of conventional PBX features that these PC PBXs shall be capable of supporting is shown in Table C.3-1. (An "X" in Table C.3-1 means that the line or trunk interface of a conventional PBX is required to have the feature. (The terms "line interface" and "trunk interface correspond to the connection between the PBX and the desktop and the PBX and the serving central office, respectively.) A "Yes" (Y) means that the PC PBX shall have the same features as a conventional PBX for analog and digital lines and trunks. Some of these features may be provided by a gateway.) The contractor shall indicate in the compliance checklist in Section

J which of these required PBX and PC PBX features, if any, will not be available.

C.3.2.2.2 Key Systems

The contractor shall be capable of providing conventional key systems including electronic key systems that share analog lines (e.g., Central Office [CO/1Mb] or Centrex service) or hybrid key systems that share digital trunks (e.g., Primary Rate Integrated Services Digital Network (Primary Rate ISDN or PRI) or DS1 service). Referring to Table C.3-1, key systems provided under this contract shall provide most of the features that are required of PC PBXs.

Non-ISDN key systems shall conform to EIA-478 (*KTS for Voice Band Application*). ISDN key systems shall conform to North American ISDN Users' Forum (NIUF) National-1 (Telcordia Pub SR-NWT-001937) and NIUF National-2 (Telcordia Pub SR-NWT-002120) standards. Table C.3-1 shows the required PBX, PC PBX, and Key System Features²

² An "X" in Table C.3-1 means that the line or trunk interface of a conventional PBX is required to have the feature. A "Yes" (Y) means that the PC PBX or key system shall have the same features as a conventional PBX for analog and digital lines and trunks.

Table C.3-1. Required PBX, PC PBX, and Key System Features (1 of 3)

Feature	Line Interface ³		Trunk Interface ⁴		PC PBX	Key System
	Analog	Digital	Analog	Digital	Rqt. Also?	Rqt. Also?
Automatic Call Back	X	X			Y	Y
Automatic Route Selection	X	X			Y	Y
Billing Account Codes	X	X			Y	Y
Blocked Exchanges	X	X		X	Y	Y
Blocking of Caller Paid Information Phone Numbers				X	N	N
Blocking Dialed Carrier Identification Code	X	X			N	N
Blocking of Selected Numbers	X	X			N	N
Call Consultation	X	X			Y	Y
Call Forward – Busy	X	X			Y	Y
Call Forward – Don’t Answer	X	X			Y	Y
Call Forward – Variable	X	X			Y	Y
Call Forwarding – Off-Net	X	X			Y	Y
Call Hold	X	X			Y	Y
Call Hunting	X	X			Y	Y
Call Pick-Up	X	X			N	N
Call Transfer	X	X			Y	Y

³ The term “line interface” corresponds to the connection between the PBX and the desktop.

⁴ The term “trunk interface” corresponds to the connection between the PBX and the serving central office.

Table C.3-1. Required PBX, PC PBX, and Key System Features (2 of 3)

Feature	Line Interface		Trunk Interface		PC PBX	Key System
	Analog	Digital	Analog	Digital	Rqt. Also?	Rqt. Also?
Call Waiting	X	X			Y	Y
Calling Number Suppression	X	X			N	N
Class of Service	X	X			N	N
Customized Group Dialing Plan	X	X			Y	Y
Data Call Setup		X		X	N	N
Data Hot Line				X	Y	Y
Data Line Privacy				X	N	N
Dial Tone Denial	X	X			N	N
Direct Data Transfer					Y	Y
Direct Fax Transfer					Y	Y
Direct Inward Dialing Number Block Assignment and Maintenance			X	X	N	N
Direct Inward Dialing /Direct Outward Dialing two-way			X	X	Y	Y
Direct Inward Dialing			X	X	Y	Y
Direct Outward Dialing			X	X	Y	Y
Distinctive Ringing	X	X		X	Y	Y
Dual Service	X	X			Y	Y
Flexible Disconnect, Both/Either Party			X	X	Y	Y
Foreign Exchange Service			X	X	N	N
Hot Line	X	X			Y	Y
Intercom Dial		X			N	Y
ISDN BRI – multipoint (Per Port)		X			N	N

Table C.3-1. Required PBX, PC PBX, and Key System Features (3 of 3)

Feature	Line Interface		Trunk Interface		PC PBX	Key System
	Analog	Digital	Analog	Digital	Rqt. Also?	Rqt. Also?
ISDN BRI – ISDN BRI packet data on D channel (per line)		X			N	N
ISDN BRI – ISDN BRI Circuit Switched Data on B channel (per B channel)		X			N	N
Message Waiting Indication	X	X			Y	Y
Multiple Appearance Directory Number	X	X			Y	Y
Multi-Appearance Preselection and Preference		X			N	N
Outgoing Trunk Group Access Denial	X	X			N	N
Privacy	X	X			N	N
Scheduled Data Transfer	X	X	X	X	Y	Y
Scheduled Fax Transfer	X	X	X	X	Y	Y
Shared PRI D Channel				X	N	N
Six-Way Conference Call	X	X	X	X	Y	N
Software Reconfiguration by Customer	X	X			Y	Y
Speed Calling, One Digit	X	X			N	N
Speed Calling, Two Digit	X	X			N	N
Three-Way Conference Calling	X	X			Y	Y
Tie Trunk			X	X	Y	N
Trunk Group Denial			X	X	N	N
Voice Mail	X	X	X	X	Y	Y

C.3.2.2.3 Voice Over IP

The contractor shall be capable of integrating VoIP telephones into the customer’s existing voice and data network. For purposes of this contract, VoIP shall include other packet switching methods, such as ATM, Frame Relay, or Session Initiation Protocol (SIP). The contractor shall be capable of delivering VoIP via a workstation instead of a VoIP telephone.

The contractor shall be capable of offering several solutions, depending on the customer's requirements. The first shall be through a PBX which supports VoIP or has VoIP functionality and provides a gateway system that provides entry to the Internet or the Public Switched Telephone Network (PSTN). Secondly, the contractor shall be capable of furnishing a gateway device that connects to the Internet and thence to the PSTN. The contractor shall be capable of furnishing additional VoIP scenarios in response to orders, such as XDSL (Digital Subscriber Line) CONNECTIONS, whereby a digital phone is connected to a local LAN connection that terminates at an Integrated Access Device (IAD). The IAD then is routed to a hub or Central Office where it is connected to a Digital Subscriber Line Access Multiplexer (DSLAM) that routes traffic onto the Internet or PSTN.

C.3.2.2.4 Wireless PBXs

PBXs with a wireless capability shall provide the same functions and features as conventional PBXs. Wireless PBX systems shall provide Base Stations (fixed transceivers) and wireless telephones for wireless access to users within a building. Wireless PBX systems shall use Unlicensed Personal Communications Service (U-PCS) radio frequencies or licensed frequencies that the contractor shall be capable of providing. The contractor shall be capable of providing a system that provides full or partial coverage of the building premises. The contractor shall be capable of providing wireless handsets that provide building or campus coverage as well as roaming capability away from the building.

C.3.2.3 Multiplexers

C.3.2.3.1 Access Multiplexers

Access multiplexers that operate at sub T1 rates shall use at least a fourth generation T1 channel bank (D4) framing convention in accordance with International Telecommunication Union (ITU) recommendation G.733.

C.3.2.3.2 Low-Speed Multiplexers

The low-speed multiplexers (i.e., multiplexers that operate at data rates between 1.2 and 19.2 Kbps) provided by the contractor with electrical asynchronous outputs shall comply with ANSI T1.102-1993.

C.3.2.3.3 Channel Banks

Channel bank systems provided by the contractor shall conform to Telcordia MDP-326-140, "Digital Channel Bank-Requirements and Objectives," Issue 1, November 1, 1982. Channel bank systems that use a Dual Tone Multifrequency (DTMF) interface shall conform to Telcordia TR-TSY-000238, "Digital Channel Bank Dual-Tone Multifrequency Code Select

Signaling Channel Unit,” Issue 1, December 1, 1986

C.3.2.3.4 Network Multiplexers

Network multiplexers provided by the contractor for outgoing trunk lines shall meet ANSI T1.102-1993, “American National Standard for Telecommunications-Digital Hierarchy-Electrical Interfaces.” Network multiplexers provided by the contractor for incoming low speed lines shall meet RS-232, EIA-530, RS-449, and V.35 standards.

C.3.2.3.5 Synchronous Optical Network Multiplexers

The Synchronous Optical Network (SONET) multiplexers provided by the contractor shall meet ANSI T1.105-1995 and Telcordia GR-253-CORE, “SONET Transport Systems: Common Generic Criteria” Issue 2, December 1, 1995.

C.3.2.3.5.1 OC-3 Synchronous Optical Network Add/Drop Multiplexers

SONET Optical Carrier-3 (OC-3, 155 Mbps) Add/Drop Multiplexers (ADMs) provided by the contractor shall meet Telcordia GR-1400-CORE, “SONET Dual-Fed Unidirectional Path Switch Ring (UPSR) Equipment Generic Criteria”

C.3.2.4 Digital Loop Carrier Systems

C.3.2.4.1 Integrated Switch Access Digital Loop Carrier

Digital Loop Carrier (DLC) systems provided by the contractor that provide integrated digital access to central office-type switches shall meet Telcordia GR-303-CORE, “Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interfaces,” Issue 1, December 1, 1995.

C.3.2.4.2 Direct Access and Stand-alone Digital Loop Carrier Systems

Digital Loop Carrier systems provided by the contractor that provide direct access to central office-type switches shall meet Telcordia TR-TSY-000008, “Digital Interface between the SLC-96 Digital Loop Carrier System and a Local Digital Switch,” Issue 2, August 1, 1987.

C.3.2.5 Digital Clock Distribution Systems

Equipment used for clock distribution for DLC systems provided by the contractor shall be compatible with the guidelines of Telcordia GR-436-CORE, “Digital Network Synchronization Plan,” Issue 1, June 1, 1996. The clocking used shall be at least Stratum level 3, for the Building Integrated Timing Supply (BITS) clocking. Also the contractor shall inform the customer of the clocking level and the source of the timing. Internal clocking is

not considered sufficient to meet this requirement.

C.3.2.6 Digital Cross Connect Systems

The digital cross-connect systems (DCSs) provided by the contractor shall conform to Telcordia TR-NWT-000233, "Wideband and Broadband Digital Cross-Connect Systems Generic Criteria" Issue 3, November 1, 1993. The cross-connect systems proposed shall be able to pass Digital Signal Level 1 (DS1) signals with standard D4 framing, super frame, and extended superframe. The test equipment for DCS proposed shall interoperate at the DS1 or Digital Signal level 3 (DS3) level with the DCS specified in this section.

C.3.2.6.1 DS1/DS0 Digital Cross Connect Systems

The DS1/DS0 digital cross-connect systems provided by the contractor shall conform to Telcordia TR-NWT-000170, "Digital Cross-Connect System (DCS 1/0) Generic Criteria," Issue 2, January 1, 1993. The DCS DS1/DS0 system shall be non-blocking; a DS0 within any DS1 may be cross-connected to any other DS1 regardless of the physical port location of the DS1 or the number of DS0 signals being cross-connected.

DS1/DS0 digital cross-connect systems provided by the contractor that use the subrate feature shall conform to Telcordia TA-TSY-000280, "DCS Requirements and Objectives for the Sub-Rate Data Cross-Connect (SRDC) Feature," Issue 2, May 1, 1986.

DS1/DS0 digital cross-connect systems provided by the contractor that use the digital multipoint bridging feature shall conform to Telcordia TA-TSY-000281, "DCS Requirements and Objectives for the Digital Multipoint Bridging (DMPB) Features," Issue 2, May 1, 1986.

C.3.2.6.2 DS3/DS1 Digital Cross-Connect Systems

DS3/DS1 digital cross-connect systems provided by the contractor shall cross-connect DS1 signals within any DS3 signal appearing on a port and connect the altered signal to another port under user control. These DCS DS3/DS1 systems shall be non-blocking; a DS1 within any DS3 may be cross-connected to any other DS3 regardless of the physical port location of the DS3 or the number of DS1 signals being cross-connected.

C.3.2.6.3 Digital Cross-Connect Systems with Synchronous Optical Network Interfaces

Digital cross-connect systems provided by the contractor with SONET interfaces shall either conform to or be upgradable to Telcordia GR-2996-CORE, "Self-Healing Ring-Functionality in Digital Cross-Connect Systems," Issue 1, August 1, 1994.

C.3.2.7 Voice Conferencing Systems

The contractor shall be capable of providing voice conferencing systems. These systems shall be complete systems of hardware and software capable of providing the number of ports required by the customer. The limited conferencing features on some PBXs, which support from three-to-10 ports is insufficient for this requirement. However, this does not preclude use of PBX systems that provide voice conferencing capabilities that meet the customer's requirements, which may include but shall not be limited to the following:

1. Dial-in and dial-out capability
2. Automatic setup (no operator assistance needed)
 - a. Meet me capability, the ability to immediately conduct a voice conference without scheduling it
 - b. Preset capability that allows an authorized user to activate a previously defined voice conference by dialing an access number followed by an authorization code. Once activated, the system shall attempt to connect the pre-designated participants.
3. Password protected
4. Host controlled access
5. Private side conference ability
6. Verification of disconnects
7. Music on hold
8. Listen only mode, controllable by the moderator
9. Use restricted or not restricted to 800 toll free numbers
10. Ability to incorporate prerecorded announcements into live broadcasts
11. Toll quality voice, including echo cancellation and voice volume equalization, and call quality monitoring
12. Connects easily to the customer's equipment of choice (e.g., PBX, private T1 or PRI)

lines, CO lines, or the customer's Virtual Private Network)

In addition, the contractor shall be capable of providing other types of voice conferencing equipment that uses the Internet to support features such as web streaming, listen first, then Q & A, etc.

C.3.2.8 Automatic Call Distribution Systems

The contractor shall be capable of providing Automatic Call Distribution (ACD) systems. ACDs shall meet the following requirements:

1. Recognize and answer incoming calls
2. Switch table (database) lookup for instructions on call handling
3. Based on database information, route the calls to a recording or send the call to an agent. The ACD shall automatically determine which agent has been idle the longest and therefore should receive the next call. Calls shall be distributed evenly or, at the option of management, by expertise or specialty of the agent.
4. Meet the grade-of-service and call-setup-time requirements for the offered load specified in the order
5. Provide call queuing when all agents are busy
6. Monitor the queue length and wait time so that when maximum thresholds are exceeded, incoming calls will overflow to the designated process or group
7. Provide CONNECTIONS to enable Agent-Supervisors to render assistance or monitor calls
8. Provide call management information on an hourly, daily, or weekly basis, including the:
 - a. Originating number
 - b. Queuing time (how long each caller had to wait before an agent was assigned)
 - c. Number of abandoned calls (how many callers gave up before being assigned to an agent)
 - d. The agent to whom the call was passed

- e. How long each agent took to answer each call
 - f. How long calls took to process
 - g. Other information desired by the customer
9. Handle messages for call backs if needed
10. Provide the following features as desired by the customer
- a. Optional redundancy for all system elements including control, storage, and tones host access
 - b. AC and DC power options with hot swappable features
 - c. SNMP agent, to enable local or remote network management and alarm reporting
 - d. SS7 networking capabilities, which are ANSI and ITU compliant
11. Announce to the caller an approximate wait time before an agent will be available

C.3.2.9 Voice Mail Systems

Voice mail systems provided by the contractor shall provide the following capabilities:

- 1. Be accessible to any station within the system that has a telephone equipped with a push-button tone pad.
- 2. Automatically prompt the recipient of a message(s) in the voice mailbox. Message prompting shall include, but not be limited to, a message waiting visual signal or stutter dial tone.
- 3. Handle inside as well as outside calls on the system.
- 4. Store messages automatically and forward the messages at specific times designated by users.
- 5. Broadcast mass announcements to all or part of its users.
- 6. Be accessible to any station connected to the customer's private network or the PSTN that is equipped with a push-button dial pad in order for the mailbox owner to retrieve or change messages.
- 7. Store fax as well as voice messages.
- 8. Provide automated attendant functions.

9. Provide message duration of at least 90 seconds.
10. Meet the accessibility requirements of the hearing impaired and other disabled persons as required by the order (see Section C.3.1.6).
11. The contractor shall be capable of supplying or interfacing with a Station Message Desk Interface (SMDI) data link to integrate a Government-owned voice mail system into its switching system.
12. Provide at least an average of six-minutes of message storage per voice mail box, dynamically assignable by the system.
13. Provide the capability to define one or multiple group addresses for distribution lists of messages.
14. Provide call out notification; i.e., have the capability to alert the user via a pager that they have received messages.
15. Provide automatic restoration of features, functions, and stored information in the event of an interruption of power.

C.3.2.10 Interactive Voice Response Systems

The contractor shall be capable of providing Interactive Voice Response (IVR) systems with the capability that allows the system to provide callers with information that is unrelated to the system automatically. For example, a caller may access the system to obtain information on health related topics through playback or email or fax. The system shall be accessed through the use of DTMF telephone units and shall have the ability to access an independent database for information.

C.3.2.11 Unified Messaging Systems

The contractor shall be capable of providing Unified Messaging Systems (UMSs). The contractor shall be capable of combining the earlier fax, voicemail, and e-mail systems that were installed separately and allow them to be operated from a single user interface. All messages to an individual shall be received in a single user mailbox. Notification of an incoming message shall occur either optically or acoustically on the users PC, wireline telephone, or cellular phone as specified in the order. Users shall have access to their mailboxes on a worldwide basis either from a telephone or via the Internet.

C.3.3 Data Equipment Requirements

All data communications equipment, hardware, and software provided by the contractor shall include, but not be limited to, following standards and specifications:

1. **Noise Generation.** The equipment provided under this contract shall operate at a

noise level at least 50 dB below the level of the noise source at a distance of one meter from the source.

2. **Bit Error Rate.** The Bit Error Rate (BER) of the data communications components shall be no greater than one bit error in 10^9 transmission bits for end-to-end subsystems performance.
3. **Packet Size.** For performance measurement purposes, tests shall be made at the minimum packet size and at the maximum packet size for the system with results reported for both cases.
4. **Installation and Maintenance.** The contractor shall be capable of installing and maintaining the data communications equipment specified in this subsection in accordance with accepted industry standards that apply to the geographic area under consideration. The contractor shall provide preventive maintenance information for any equipment that they deliver.

C.3.3.1 Concentrators/Transceivers

C.3.3.1.1 Hub Concentrators

The contractor shall be capable of providing fiber optic, unshielded twisted pair, coaxial, and the following attachment unit interfaces, Institute for Electrical and Electronic Engineers (IEEE) 802.3, IEEE 802.5, Fiber Distributed Data Interface (FDDI), DS1, DS3, High Speed Serial Interface (HSSI), and OC-3C. The hubs shall support SNMP and shall operate with the associated fiber optic, twisted pair, and coaxial cable plants.

The contractor shall be capable of providing a high-performance backbone concentrator for interconnecting high speed Metropolitan Area Network (MAN) and Wide Area Network (WAN) CONNECTIONS, which shall include, but not be limited to, ATM/SONET, FDDI, 100BaseX, DS1, HSSI, SONET, Frame Relay, Switched Multimegabit Data Service (SMDS), and Gigabit Ethernet (GigE) CONNECTIONS.

C.3.3.1.2 Transceivers

The contractor shall be capable of providing appropriate IEEE 802.3 transceivers (Media Access Units) to provide the physical connection between the IEEE 802.3 concentrator and the terminal devices, bridges, and the transport network where needed.

C.3.3.2 Routers, Switches, Gateways, and Firewalls

C.3.3.2.1 Routers

The contractor shall be capable of providing multiple protocol router network equipment

across media and protocol types, such as IEEE 802.3, IEEE 802.5, ITU-TS X.25 Basic and Standard, ANSI FDDI, ATM, DS1, DS3, HSSI, IBM Systems Network Architecture (SNA), Frame Relay, SMDS, SONET, and Internet Packet eXchange (IPX). The routers shall be fully programmable for protocol types, security, and routing/address selection of sub-networks. The routers shall support SNMP and Frame-based User-to-Network Interface (FUNI) Frame Relay services.

C.3.3.2.2 Ethernet Switches (Layer 3 Switches)

The contractor shall be capable of providing IEEE 802.3 compliant Ethernet switches that conform to IEEE 802.1D (spanning tree) switching standards. The port speeds supported shall be 10 Mbps, 100 Mbps, and others as required. The switches shall have 100 Mbps or ATM high speed uplink ports. The switches shall have the ability to create Virtual Local Area Networks (VLANs) and the switches shall support multiple addresses per port. The switches shall support a minimum of 1,000 Media Access Control (MAC) addresses per port. The switches shall perform Layer 3 switching using, but not limited to using, Open Shortest Path First (OSPF) and Routing Information Protocol (RIP) routing. Also, this switch shall have the capability of switching at Layer 2 and shall support a Frame-based User-to-Network Interface. The contractor shall be capable of providing all hardware and software to integrate the Ethernet switches into the Local Area Network (LAN) topology. The switches shall be stand alone, hub based, or stackable and shall support SNMP.

C.3.3.2.3 Asynchronous Transfer Mode Switches

The contractor shall be capable of providing all necessary equipment and software to implement ATM type switches. The ATM ports shall be 25 Mbps, 155 Mbps (OC-3c), or 622 Mbps (OC-12c). The interfaces shall be DS3, SONET, and Unshielded Twisted Pair (UTP) compliant. ATM switches shall be modular and compatible with the ATM Forum's latest standards for LAN Emulation, ATM Forum's User-to-Network Interface (UNI) specification 3.1 and 4.0, the IETF's RFC 1577 for enabling classical IP over ATM, and IETF RFC 1483 Multiple Protocol encapsulation Over ATM (MPOA). The contractor shall be capable of providing solutions using Private Network to Network Interface (PNNI) standards. The switch shall be capable of supporting Available Bit Rate (ABR), Constant Bit Rate (CBR), non-real-time Variable Bit Rate (nrtVBR), real-time Variable Bit Rate (rtVBR), and Unspecified Bit Rate (UBR) requirements. Also the switch shall be capable of transporting ATM Adaptation Layer Type 1 (AAL1), AAL2, and AAL5 traffic. The contractor shall be capable of providing all hardware and software to integrate the ATM switches into the LAN topology. The switches shall be stand-alone, hub-based, or stackable and shall support SNMP.

C.3.3.2.4 Gateways

The contractor shall be capable of providing all hardware and software necessary to interconnect LANs to mainframe environments via gateways. The gateways shall include SNA to Transmission Control Protocol (TCP)/ IP and SNA to IPX. The gateways shall support SNMP.

C.3.3.2.5 Firewalls

The contractor shall be capable of providing all hardware and software components to interconnect and implement networks via firewalls. The firewalls shall provide gateways to ensure security to network components from the Internet, such as e-mail, File Transfer Protocol, and Telnet. The firewall shall handle Domain Name Service (DNS). Authentication via security measures such as tokens or software shall be standard.

C.3.3.3 IEEE 802.3 Repeaters and Bridges

C.3.3.3.1 Repeaters

The contractor shall be capable of providing IEEE 802.3 repeaters. These repeaters shall provide 10BaseT, 10Base2 and 10BaseFL ports and other 802.3 repeaters for high speeds such as 100Base.

C.3.3.3.2 Bridges

The contractor shall be capable of providing “learning” bridges that can support a spanning tree algorithm for network components (e.g., IEEE 802.1). The bridges shall have 10BaseT, 10BaseFL, 10Base2, 100BaseT, and 100BaseFX interface capabilities. The ISDN bridges shall support SNMP.

The contractor shall be capable of providing bridges to interconnect IEEE 802.3 LANs with other IEEE 802.3 LANs or FDDI host interfaces over an FDDI backbone. The bridges shall perform translation of IEEE 802.3 packets to native FDDI packets as well as create an envelope around an IEEE 802.3 packet in order to provide a native FDDI packet to an FDDI host. The protocols supported across the FDDI bridge shall be TCP/IP and IPX over the FDDI physical layer. The FDDI bridges shall support SNMP management.

The contractor may substitute the functionality of a Layer 3 Switch or other device which provides bridging for an actual hardware bridge.

C.3.3.4 Communications Servers

The contractor shall be capable of providing IEEE 802.3 compliant communications servers. The communications servers shall provide TCP/IP and IPX dual stack for interoperability with the IEEE 802.3, TCP/IP hosts, and Netware compatible systems. The servers shall

allow file transfer (Kermit, X MODEM, Serial Line Internet Protocol (SLIP), and Point-to-Point Protocol (PPP)) across the communications ports regardless of port speed. The servers shall have the ability to communicate with authentication schemes such as PAcKet-level Procedure (PAP), Challenge-Handshake Authentication Protocol (CHAP), Remote Authentication Dial-In User Service (RADIUS), or Kerberos. The servers shall support SNMP and shall meet the applicable specifications in the subsections that follow.

C.3.3.4.1 IEEE 802.3/RS-232E Asynchronous Communications Servers

The contractor shall be capable of providing EIA/Telecommunications Industry Association (TIA) RS-232E compliant asynchronous communications servers for connection of Government-owned PCs, terminals, printers, and modems on IEEE 802.3 networks. The asynchronous communications servers shall provide full RS-232E functions, including transmit data, request to send, clear to send, data terminal ready, data set ready, and carrier detect, X/ON and X/OFF flow control and ENQuire (ENQ)/ACKnowledge (ACK) flow control; and these functions shall be configurable by the user. The communications server shall provide virtual terminal services to a networked host as well as terminal emulation for existing terminal types (e.g., VT-100, IBM 327x), printer server, and modem pool functions.

C.3.3.4.2 Access Servers

The contractor shall be capable of providing access servers supporting multiprotocol functions to provide connectivity to LANs. The servers shall have interfaces for modems, Channel Service Unit (CSU)/Digital Service Unit (DSUs), and Tie Line (TL)/PRI circuits. The access servers shall support TCP/IP, IPX, Local Area Transport (LAT), Reverse LAT, Appletalk Remote Access (ARA), PPP, SLIP, Compressed Serial Line Interface Protocol (CSLIP), and TN3270. The modems shall be ITU-TS V.90 compliant. The CSU/DSU interface shall support 24 DS0s with D4 and Extended Super Frame (ESF) formats. Supported security shall include Kerberos, PAP, CHAP, TACACS, TACACS+, RADIUS, dial back, audit logs, passwords, and user authentication.

C.3.3.4.3 IEEE 802.3/IBM 3270 Synchronous Communications Servers

The contractor shall be capable of providing IBM 327x/SNA-compliant synchronous communications servers for connection of Government-owned PCs equipped with 3270-type standard interface cards and 327x printers to IEEE 802.3 LANs. Each server shall support multiple independent synchronous port connections to the LAN. The communications servers shall provide Virtual Terminal (Telnet) services to a LAN host as well as terminal emulation for existing 327x-type terminals and printer server functions.

C.3.3.5 Virtual Private Networks

The contractor shall be capable of providing hardware and software (but not network services) to support customer Virtual Private Networks (VPNs). For purposes of this SOW, a VPN is a private data and voice network that makes use of public or private telecommunication services and facilities, maintaining privacy through the use of a tunneling protocol and security procedures. The customer may task a CONNECTIONS contractor to plan, provision, install, operate, and/or maintain a VPN using network services provided by another Government contractor.

If so tasked, the contractor shall be capable of purchasing, installing, operating, and maintaining the routers, firewalls, capacity, and connectivity arrangements at different sites. The contractor shall be capable of deploying VPNs that interconnect geographically disbursed hosts in a single network, and the nodes shall not be limited to fixed sites. The contractor shall be capable of providing secure VPN connectivity for mobile workers. They also shall be capable of providing both voice and data connectivity.

Two enabling technologies that are acceptable for use in a VPN provided under a CONNECTIONS contract are:

1. Layer 2 tunnels that can use the point-to-point (PPP) data link CONNECTIONS between tunnel points. Standard Layer 2 Tunneling Protocol (L2TP) also provides authenticated tunneling. (Note, however, that L2TP by itself does not provide message integrity or confidentiality.)
2. Layer 3 tunnels also provide IP-based virtual CONNECTIONS. In this approach normal IP packets are routed between endpoints that are separated by any intervening network topology using a Secure Sockets Layer (SSL) that can be used to secure HyperText Transfer Protocol (HTTP) without adding client software.

C.3.3.6 Additional Data Network Equipment

C.3.3.6.1 Modems

The contractor shall be capable of providing modems compatible with the bridges, routers, PCs, and communications servers specified in the order. The modems shall comply with accepted telephone industry standards that apply to the area under consideration and as specified in the order. In addition, analog modems shall comply with the V.90 ITU and V.42bis ITU standards. Digital Subscriber Line (DSL) modems shall comply with the 802.3-LAN IEEE standard. The modems shall support SNMP.

C.3.3.6.2 Network Interface Cards

The contractor shall be capable of providing Network Interface Cards (NICs) and associated Computer Industry Association (CIA)/International Communications Association (ICA) equipment which will fully operate with Government Furnished Equipment (GFE) host computer interfaces and meet the IEEE 802.3, IEEE 802.5, FDDI, TCP/IP, and IPX specifications.

C.3.3.6.3 Channel Service Units, Digital Service Units, and Frame Relay Access Devices

The contractor shall be capable of providing CSUs, DSUs, Frame Relay Access Devices (FRADs), and other devices for terminating dedicated or switched services, such as, Frame Relay, switched 56 Kilobits per second (Kbps), and switched 64 Kbps with the public switched network (PSN). The CSUs/DSUs/FRADs can be stand-alone or rack mounted. The CSU/DSUs/FRADs shall support the port speeds requested by the customer, such as 56/64 Kbps, Fractional T1, or full T1. The interfaces shall be V.35, RS449, Autonomous Unit Interface (AUI)/Register Jack (RJ) 45 and DB15/RJ48 for console interface. The CSU/DSU/FRADs shall support SNMP.

C.3.3.6.4 Wireless LAN Systems Equipment

The contractor shall be capable of furnishing hardware and software for designated wireless LAN systems, including hub units and transceiver units (access points) using IEEE 802.11b wireless LAN protocol. These units shall be capable of functioning as wireless IEEE 802.3 LANs. Other LAN protocols that provide similar speed and functionality may also be tasked to the contractor.

C.3.3.7 Database Management System Interfaces

The interfaces of databases provided under this contract that are accessible to CONNECTIONS customers shall comply with the Open Database Connectivity (ODBC), an application programming interface (API) for database access that was developed by the Microsoft Corporation.

C.3.3.8 Network Operating System

The contractor shall be capable of furnishing software for the designated LAN network interface cards, TCP/IP, and IPX drivers to provide a local area Network Operating System (NOS) in accordance with the descriptions, network layer protocols, and the requirements below:

C.3.3.8.1 General Requirements

C.3.3.8.1.1 User Interface

The LAN network operating system software shall provide a uniform and consistent user interface. This user interface shall be a menu driven Windows configuration.

C.3.3.8.1.2 Input Devices

The LAN NOS software package shall support the following user-selectable input devices:

1. User keyboards
2. Summagraphics Summasketch Input Device - Logitech, Microsoft compatible mouse with Microsoft Windows and Apple MacOS mouse functionality
3. Other input devices as are required, such as a scanner

C.3.3.8.1.3 Video Interface

The LAN NOS shall support standard Super Video Graphics Array (SVGA) monitors. The LAN NOS shall supply additional video drivers to operate on Video Graphics Array (VGA) monitors. They also should support eXtended Graphics Array (XGA), Video Electronics Standards Association (VESA) Super VGA, and Digital Video Interaction-D (DVI-D) for new flat panel digital displays.

C.3.3.8.1.4 Error Reporting

The LAN NOS software package shall provide messages regarding software errors that identify the problem and provide the appropriate solution. The contractor shall be capable of providing a *User Manual* that describes all error messages and their remedies.

C.3.3.8.1.5 User File Sharing Capabilities

The server version of the LAN NOS software package shall provide full file-sharing capabilities that allow users on client workstations and servers to perform the required file-sharing functions by selecting an icon.

C.3.3.8.1.6 Shared Devices

The client workstation and server versions of the LAN NOS software package shall be capable of using any shared peripheral device across the network. The peripherals shall be capable of being connected directly to the client workstation, the device's own LAN interface, or the server at the user's option.

C.3.3.8.1.7 Backup Capability

The server versions of the LAN NOS software package shall provide a backup capability for shared network files on the server using contractor-supplied backup units. The software shall back up to 40 Megabytes (MB) of shared network files in less than 30 minutes over the network within a single LAN segment.

C.3.3.8.1.8 Remote Dial-In Capabilities

The remote client version of the LAN NOS software package shall provide the same user interfaces as a client workstation physically attached to the LAN.

C.3.3.8.1.9 Security Considerations

The contractor shall ensure that any software delivered under the CONNECTIONS contract is configured and patched to minimize the risk of intrusion, abuse, and virus infiltration. All versions of the LAN NOS software packages shall provide secure access and require the use of passwords.

C.3.3.8.1.10 Network Administration

All versions of the LAN NOS software package shall provide central network system administration functions (i.e., system administration from a user-designated central remote server or network monitor). These functions shall allow any user with network system administrator privileges to install and maintain the network software provided. The network management system shall provide management services to the networking devices using the SNMP standard over IP in accordance with RFC 1067.

The network administrative functions shall include:

1. Setting-up mailboxes
2. Adding and deleting users
3. Assigning UserIDs and resetting passwords and security privileges
4. Assigning server resources, printer resources, file resources, and levels of resource access for each user

C.3.3.8.2 Microcomputers to be Supported

Any of the contractor provided microcomputers connected to the network shall be configurable as a client workstation. Any of the microcomputers with one or more RS-232E ports shall be configurable as a dial-in client workstation. The microcomputers at a minimum shall be supported by the LAN NOS software packages.

C.3.3.8.3 Local Area Network Packages

The contractor shall be capable of providing a NOS package to create a user environment for the TCP/IP protocol drivers specified in the order. The offered package shall be COTS equipment. The only software modifications that are allowable are the addition of drivers for peripheral devices to meet the requirements of the order. All software, input/output handlers, and drivers included in the commercial version used to integrate the software package with other manufacturer's peripheral devices shall be provided. All software shall be delivered on 3.5 inch (1.44MB) PC diskettes, CD-ROMs, or via the Internet as specified in the order. The requirements listed in the Network Operating System specification shall be met by the offered products. The LAN package shall consist of the following requirements:

1. Operate on the LAN hardware and TCP/IP software drivers provided under this specification.
2. Operate with the peripheral equipment specified in the order, including printer sharing.
3. Provide central system administration from a local or a remote client station.
4. Provide an SMTP and X.500 E-mail agents, server, router, and gateway.
5. Interoperate with other proposed NOS products.

C.3.3.8.4 Local Area Network Interfaces

The contractor shall be capable of providing the LAN NOS. The hosts and GFE described, when connected to the LAN segments via host attachments, shall be considered part of the network. The LAN NOS shall not interfere with nor prevent the proper operation of the host attachments, TCP/IP, or IPX protocols, and the local area network.

Referring to Section B, the contractor shall be capable of providing sub-ID_Number breakdowns for the LAN NOS in complete packages that are configurable in the following client-server and/or peer-to-peer architectures at a minimum for PC workstations and servers for Windows 95, Windows 98, Windows 2000, Windows NT, Windows XP, Linux, Apple McIntosh Operating System (MacOS) 8, and MacOS X:

1. Client workstation
2. Dedicated and/or non-dedicated server
3. Dedicated and/or non-dedicated server-host attachment
4. Printer or communications server
5. Remote dial-in software module for dedicated servers

6. Remote dial-in client software for PCs and laptops using a modem or RS-232E port
7. Remote dial-in software for UNIX workstations

The number of client workstations and servers on the LAN shall not be constrained by the number of devices specified.

C.3.4 Video Equipment Requirements

The Government requires video equipment and services to support video teleconferencing and video surveillance requirements.

C.3.4.1 Video Teleconferencing Requirements

The Government requires equipment that allows participants at different physical locations to conduct video conferences. This equipment shall also support ancillary data transmission for sharing software applications and various types of data files among video conferencing participants.

The contractor shall be capable of providing video equipment and services that interface with a circuit switched or a packet switched network. The traditional method of delivering video conferencing is with circuit switched connections. Increasingly, there are requirements to use packet switched connections for both point to point and point to multipoint calls. Packet-switched connections are typically IP or ATM based and allow for the possibility of desktop video conferencing.

In order to use packet based video conferencing, more is required than simply an IP connection to a LAN. Enabling software and hardware for the workstation is required, and the contractor shall help the customer ensure that the required Quality of Service (QOS) is delivered. Typically, if the packet video conferencing system is used within a customer's own organization, the QOS requirements are not difficult to meet. Problems may arise, however, if the Internet is used. To avoid using the Internet, the customer may use the organization's private network or VPN (see Section C.3.3.5).

Video equipment and services provided under this contract shall conform with the Federal Telecommunications Recommendations (FTR) 1080 - 1997 (hereafter referred to as FTR-1080) issued by the Technology and Standards Division of the National Communication System (NCS) and with the following Multimedia Teleconferencing Standards depending on the application:

1. ITU G.711
2. ITU G.722

3. ITU G.728
4. ITU H.221
5. ITU H.320
6. ITU H.321
7. ITU H.323
8. ITU MPEG-1
9. ITU MPEG-2
10. ITU T.120

Video equipment and services provided under this contract also shall meet the following requirements:

C.3.4.1.1 Video Teleconferencing Equipment Configurations

The contractor shall be capable of supporting video conferencing requirements in which the equipment is located in a conference room, a portable (“rollabout”) cart, or on a desktop. The contractor shall be capable of providing complete video conferencing rooms on a turnkey basis in response to orders. The contractor also shall be capable of providing rollabout carts and desktop configurations in response to orders and shall propose ID_Numbers that support these requirements. The equipment shall conform to the specifications described in the remainder of this subsection.

C.3.4.1.2 Codecs

The contractor shall be capable of providing codecs that operate at any or all of the following transmission rates:

1. 56/64 Kbps
2. 128 Kbps,
3. 384 Kbps,
4. 768 Kbps,
5. 1.544 Mbps
6. 1.920 Mbps
7. All of the above rates
8. Rates from 1.920 Mbps to 100 Mbps to support standards such as MPEG-2

The codecs shall meet the following interface specifications:

1. Video input/output:
 - a. National Television Standards Committee (NTSC) composite analog video signal (according to standards EIA-170 and EIA RS-250)
 - b. Yellow (Y)/chrominance (C) analog
 - Y: 1.0 volt peak-to-peak, at 75 ohms
 - C: 0.286 volt peak-to-peak, at 75 ohms
2. Audio input:
 - a. Line level
 - b. Microphone level
3. Audio output:
 - a. Line level
 - b. Speaker level
 - c. Headphone level
4. Data interface(s) (any combination of the following data interfaces shall be supported by the codec):
 - a. EIA RS-232
 - b. EIA RS-449
 - c. ITU-TSS V.35
 - d. EIA RS-530
 - e. ISO/IEC 1318

C.3.4.1.3 Inverse Multiplexers

The contractor shall be capable of providing inverse multiplexers that output to multiple DS0 lines or Basic Rate ISDN (BRI) lines and interface on the input side with the codec at the data rates used by the codec (i.e., 128 Kbps, 384 Kbps, 768 Kbps, 1.544 Mbps, 1.920 Mbps, or higher as required). The inverse multiplexers shall support all of the following interfaces:

1. EIA RS-449 (with RS366A)
2. EIA RS-530 (with RS366A)
3. ITU-TSS V.35 (with RS366A)

C.3.4.2 Video Surveillance

The contractor shall be capable of providing video equipment and services for video surveillance. The same standards and requirements that apply to video teleconferencing apply to the video surveillance systems. In addition, the contractor shall be capable of providing a system that includes, but is not limited to, features such as video motion detection, pre and post alarm monitoring, remote access, remote video monitoring, video display in full color, image authentication, archiving, and other features specified by the customer in the task order.

C.3.4.3 Other Video Equipment Requirements

The contractor shall be capable of providing other appropriate video equipment to support the customer's video requirements in response to orders, including the following:

1. Video cameras (conference room, rollabout cart, and desktop)
2. Microphones (conference room, rollabout cart, and desktop)
3. Video recorders
4. Electronic black boards
5. Software to integrate the terminal device (desktop, rollabout cart, or conference room) with the IP network
6. Multipoint Control Units (MCUs) to establish conference calls between three or more people for converged voice, video, and data conferences.
7. Gateways to make video conferencing equipment that complies with the standards herein interoperable whether they are connected via a circuit switched or packet switched network.
8. Gatekeepers to manage and control network resources and usage. To compensate for the non-intuitive underlying IP address system, the contractor shall be capable of providing devices such as H.323 gatekeepers to provide address translation and directory server services.
9. Other interconnection equipment for the items provided under this contract, and equipment, PCs, and other items provided by the customer.

C.3.5 Supporting Equipment and Services Requirements

Supporting Equipment and Service Requirements are enabling capabilities necessary for the implementation of Voice Equipment items specified in section C.3.2, Data Equipment specified in section C.3.3, and Video Equipment specified in section C.3.4. As Supporting Equipment and Service Requirements is not a separate subcategory, there will be no separate awards in the Supporting Equipment and Services product area.

C.3.5.1 Site Preparation

The contractor shall be capable of preparing the site prior to installing equipment and services delivered under this contract. The contractor shall perform a site survey within 30 days of receipt of an order. A *Site Survey Report* shall be provided to the DAO within 45 days after receipt of the order. The contractor shall provide a fixed-price quotation to the order that specifies how the site is to be prepared, indicating the contractor's price for accomplishing the job. The customer shall have the option of accepting the contractor's offer or using another contractor.

All work done by the contractor under this contract shall conform to all appropriate local codes and shall conform to accepted industry installation and construction practices. All work and code compliance shall be subject to Government review and approval prior to the start of work.

Possible site preparation activities include, but are not limited to, the following:

1. Building construction services for expanding or modifying real property to support the system installation.
2. Installing raised flooring.
3. Installing or modifying heating, ventilating, and air conditioning (HVAC) systems to provide appropriate environmental control to support the telecommunications equipment.
4. Installing or modifying power systems, power panels, lighting and receptacles, and grounding facilities.
5. Support services such as trenching, duct systems, building conduits, site management, and permit applications for digging.
6. Installation of other required equipment and services, such as environmentally controlled housing, cross connect panels, microwave systems, and satellite earth stations.
7. Installation of network equipment as specified in the order, including LANs, MANs,

WANs, intranets, extranets, wireless networks, trunked radio systems, and required interconnect equipment.

The contractor shall provide the tools and test equipment to perform the infrastructure construction as required by the order. The contractor shall retain ownership of the tools and test equipment unless otherwise specified in the order.

The Government will furnish facilities and utilities to the contractor that already are installed at the site, including light, heat, ventilation, power, and outlets. The contractor shall be capable of providing utilities that are not available in the work area and coordinating any temporary disconnection of a utility.

C.3.5.2 Cabling and Wiring

The contractor shall be capable of furnishing, installing, and terminating inside wiring to all outlets indicated on the Government drawings specified by the order. Where applicable, installation shall be terminated at each desk outlet on dual, modular, flush mounted, miniature connectors that meet accepted industry standards and local regulations. Where outlets have been designed for wall phones, the appropriate “lug type” faceplate connector shall be used. The completed installation shall meet or exceed accepted industry standards for “flush-mounted” terminals/connectors. Station cables not installed in conduits shall be properly secured and arranged in organized bundles. All wire and cables installed by the contractor outside of conduit or an enclosed duct system shall be fastened at such intervals to prevent sagging. If installed above the ceiling, cables shall be bundled into one unit, secured to wall or support anchors, tied and strapped neatly, and elevated above the ceiling.

Embedded horizontal and vertical wiring in Government-owned buildings shall be used if possible. For orders where the existing wiring between the specified termination points is determined by the contractor to be unsatisfactory, the contractor shall propose a solution. If the customer agrees with the contractor’s assessment that the inside wiring is unsatisfactory, the customer may request that the contractor install or repair the inside wiring. The Government reserves the right to use other contractors to upgrade the existing inside wiring or to install the new inside wiring. The contractor shall be capable of coordinating with the building manager, agency telecommunications manager, and the wiring contractor and shall be capable of acting as the Government’s agent in accordance with Section G.

Cabling and wiring shall be installed in a manner that complies with applicable Building Consulting Service International (BICSI) and local codes and with accepted industry practice. The contractor shall terminate cables on terminal/blocks and jacks in housing (when so directed) using accepted industry practices. The complete cabling and wiring distribution system, including all outlets and hardware items, shall be labeled in accordance with ANSI/EIA/TIA 606, dated February 1993 or as updated.

All house cable installed in dedicated closed raceways (i.e., steel conduits) shall meet or exceed the requirements of the Insulated Cable Engineers Association (ICEA) S-80-576. All other interior cabling shall meet the requirements of the National Electric Code, Section 300-22. All wires that terminate on telephone stations shall meet or exceed the requirements of ICEA S-80-576.

The contractor shall be capable of providing the following types of cable and wire:

C.3.5.2.1 Telephone Cable

All telephone cable furnished by the contractor and installed under this specification shall have at least the number of insulated twisted pairs of copper conductors specified in the order and shall use at least 24 American Wire Gauge (AWG) gauge four-pair CAT 3 cable or better. The complete cable distribution system shall be labeled in accordance with ANSI/EIA/TIA 606.

C.3.5.2.2 Unshielded Twisted Pair Cable

UTP cable shall conform to the EIA/TIA/EIA-568-B.1.2.3, Technical Systems Bulletin - 36 (TSB-36) for Categories 3, 4, and 5 cables. UTP cable shall be provided in multiples of four twisted-pairs (eight conductors) unless otherwise specified in the order.

C.3.5.2.3 Riser Cable

All inside riser communications cable shall be shielded, 24 AWG solid, thermoplastic insulated conductors. It shall be enclosed with a thermoplastic outer jacket. The riser cable shall be CMR type and capable of passing the IEEE 383 vertical flame test.

C.3.5.2.4 Fiber Optic Cable

Fiber optic cable provided under this contract shall conform to ANSI/TIA/EIA-568-B.1.2.3.

All inside cable runs shall be installed with no splices. Unless otherwise specified in the order, outside plant cable shall be terminated within 50 feet or less upon entrance into a building. Fiber optic cable meant for outside plant applications shall not be used for inside applications.

Fiber termination equipment shall be wall or rack mountable and designed to provide termination facilities for up to 24 fibers. The unit shall also have capability to be equipped with spliced trays, six packs (for adapters), and blank panels for easy termination of the fiber bundles and tube cables.

C.3.5.2.5 Tube Cable

Tube cable for outside plant environment shall include 1 to 19 empty tubes with the following options; water barrier (laminated aluminum polyethylene [LAP] sheath), tensile and load capabilities (steel and dielectric center member), and rodent protection as specified in each order. Tube cable for inside plant environments shall include 1 to 19 riser rated or plenum-rated empty tubes.

C.3.5.2.6 Installing Wiring and Distribution Cable

The contractor shall be capable of installing horizontal and vertical wiring and cross connects in accordance with the order and this SOW. If so tasked, the contractor shall be capable of performing the following tasks:

1. **Underground Distribution.** Prepare existing underground manhole/duct systems, install pull ropes, repair ducts, and identify cable routes and pedestal locations as necessary.
2. **Corrosion Control.** Minimize corrosion-inducing conditions, such as water retention, corrosive environments, and dissimilar metal contacts and use applicable protective coatings and finishes.
3. **Cable and Component Identification.** Install permanently affixed, easily identifiable, and legible identification tags for each wire and distribution component installed. Cables shall be identified at each end.
4. **Grounding and Shielding.** Ground, bond, and shield the distribution system as required by accepted local practice. For broadband applications, active distribution components shall be fault-protection grounded.
5. **Transient Protection.** Provide transient protection, to include lightning and surge protection for power and signal cables and electronic equipment as specified in the order and as required by local codes and industry practice.

C.3.5.2.7 Outside Plant Cable and Support Structures

The contractor shall be capable of providing outside plant cable and support structures, including roof support and management. The contractor shall be capable of providing underground and buried cabling and support structures (maintenance holes, hand holes and pull boxes, environmentally controlled vaults, conduit, and electrical grounding) and buried applications such as tunnels that include support structures and grounding.

The contractor also shall be capable of providing aerial and roof cabling systems, including aerial support structures (existing/new construction, messengers, anchors and guys, aerial grounding systems, tension sag and span). Additional roof management tasks may include

management and placement of satellite and terrestrial microwave dishes as well as cellular and other additional antennas along with all ancillary equipment and cabling, such as transfer boxes to link indoor cable to the outside equipment and provide all lightning prevention components.

The typical scale of work shall include necessary preparation, obtaining permits, preparing cable pathways, installing cable, splicing cable, testing, and acceptance. Additionally, the scope of work may include pre-job assessment, easements/right-of-way work, environmental/aesthetic impacts, system topologies, and route design issues.

The contractor shall meet all applicable local codes and regulations, OSHA regulations, and ANSI/TIA/EIA standards.

C.3.5.3 Power Systems

Contractor provided power systems shall be designed to support the telecommunications systems and equipment specified in the order.

The battery plant shall provide at half load at least eight hours of backup DC power when the commercial AC power is down. Contractor-provided batteries shall be sealed recombining cells or maintenance-free type batteries and shall have a life expectancy of at least 20 years. Upon restoration of commercial power or the activation of an AC standby power system, the contractor provided rectifiers shall automatically return on line and begin recharging the battery plant.

Power systems delivered under this contract shall meet either Telcordia TR-TSY-000967, "Generic Requirements for a Low-Power Telecommunications Power Supply/rectifier," Issue 1, June 1, 1990 or Telcordia TR-TSY-000947, "Generic Requirements for a - 48 Volt Telecommunications Switchmode Rectifier/Power Supply," Issue 1, April 1, 1990, depending on the power output specified. Power system alarms shall be provided by the contractor.

The contractor provided Uninterrupted Power Supplies with AC/DC conversion capability for networking shall have the capability to automatically shutdown concentrators, bridges, routers, switches, terminal servers, communication servers, file servers, and PCs. The system shall recharge discharged batteries to at least 95 percent of their fully charged condition within 24 hours.

The contractor also shall be capable of providing surge suppressors.

C.3.5.4 Environmentally Controlled Housing

The contractor shall be capable of providing environmentally controlled housing that

controls the temperature and humidity within specified ranges. This housing shall adequately support all requirements of any furnished equipment and environmental control devices. The contractor shall be capable of providing commercial AC power to the power distribution board in the huts/vaults for operation of all equipment and also shall be capable of providing the following features:

1. Overload lighting
2. Wall receptacles (110 VAC) (minimum of one receptacle every 10 feet is required)
3. Built in ladder (underground vaults)
4. Alarm system (alerts central office)
5. Fire extinguisher (wall mounted and shall meet OSHA Standard 29 CFR 1910.157)

C.3.5.4.1 Equipment Enclosures.

Equipment enclosures shall be available in three sizes where the inside dimensions are length x width x height:

1. 10' x 10' x 10' (with 100 amp power panel)
2. 16' x 10' x 10' (with 200 amp power panel)
3. 21' x 12' x 10' (with 200 amp power panel)

C.3.5.4.2 Controlled Environment Vaults

Vaults shall be underground with only environmental control units and access above ground. Vaults shall be available in two sizes where the inside dimensions are given as “length x width x height”:

1. 10' x 10' x 9' (with 100 amp power panel)
2. 16' x 10' x 10' (with 200 amp power panel)

C.3.5.4.3 Alarm Systems

Huts and vaults shall be minimally equipped to detect the following alarm conditions:

1. Low temperature
2. High temperature

3. High humidity
4. High water level
5. High carbon monoxide, carbon dioxide, or other gas levels specified in the order
6. Intrusion
7. Primary power off

C.3.5.5 Equipment Racks

Contractor provided equipment racks shall be available in different sizes and shall be either aluminum or steel with bolted or welded construction. Steel equipment racks shall be painted with a flame-retardant paint. Each equipment rack shall have a copper grounding bar installed and shall be grounded to the earth in accordance with accepted industry practice. Equipment racks shall be compatible with the electronic equipment furnished and installed under the order.

C.3.5.6 Cross Connect Panels

The contractor provided manual cross-connect panels for DS1 through DS3 data rates shall meet Telcordia TR-NPL-000320, "Fundamental Generic Requirements for Metallic Digital Signal Cross-Connect Systems-DSX-1, -1C, -2, -3," Issue 1, April 1, 1988. Manual cross-connect panels for DS1 data rates shall meet Telcordia TR-NPL-000321, "Generic Requirements for Manual Digital Signal Cross-connect Frames DSX-1, -1C, -2," Issue 1, April 1, 1989. Manual cross-connect panels for DS3 data rates shall meet Telcordia TR-NPL-000424, "Generic Requirements for Manual Digital Signal Cross-connect Frames DSX-3," Issue 1, July 1, 1988.

The contractor provided patch panels for fiber optic terminating equipment shall provide appropriate mounting connectors and couplers on an optical patch panel. Fiber-cable management and cable-routing hardware shall be provided by the contractor to assure conformance to minimum fiber and cable bend radii. The contractor shall provide access to both sides of the panel as appropriate. The patch panel for the connectors shall be mounted to facilitate rearrangement and identification. Each apparatus shall be labeled to show the terminating fiber pairs, and the contractor shall provide the associated cabling and connectivity instructions. The patch panels shall be either rack or wall mounted.

C.3.5.7 Microwave Systems

The contractor shall be capable of providing microwave systems that use either licensed or unlicensed bands that may range from the 800 MHz band to the 94 GHz band. These

frequencies cover the bands used by cellular radio, LMDS, MMDS, satellite ground stations, local campus wireless phones, and other wireless devices of interest to CONNECTIONS customers. The contractor shall be capable of using existing licensed frequencies provided by the Government or obtaining licensed frequencies. The systems required may be for simple point to point connections, multipoint, or campus type applications. The contractor may be tasked with providing all hardware, software, and integration to provide voice and/or data and video service in conjunction with the existing or planned network topology. The contractor also shall be capable of providing a backup plan and continuous monitoring capability using SNMP so that any alarms or troubles in the system are quickly known.

The contractor also shall be capable of providing free-space optics systems (lasers) to support the customer's requirements.

Any microwave or free-space optics systems are required to have the same availability as wireline connections. All microwave systems shall meet applicable FCC, ITU-T, ITU-R, and IEEE standards as determined by the order.

C.3.5.8 Other Equipment and Services Requirements

The contractor shall be capable of providing other equipment and services to meet the requirements of orders issued under this contract, such as satellite earth stations and in-building paging system, in accordance with accepted commercial practices that apply to the area under consideration.

C.4 SUPPORT SERVICES

This section has two subsections. Section C.4.1 specifies the Support Services requirements - each of which has high labor content. Section C.4.2 specifies the minimum resource requirements of a Support Services contractor – Professional Series, Technical Series, and/or E-Business Series. The contractor has discretion regarding how best to deploy these resources to meet the requirements that are described in Section C.4.1 and the order.

C.4.1 Service Requirements

C.4.1.1 Consulting Services

The contractor shall be capable of providing consulting services that meet the customers' requirements, which may include, but are not limited to, the following:

C.4.1.1.1 Requirements Analysis

The contractor shall be capable of supporting the customer in identifying, compiling, and analyzing its information transfer requirements and in determining how these requirements

can best be met. These tasks may include identifying requirements, identifying available alternatives that may respond to these requirements and assessing their feasibility, and defining support requirements. The scope of these activities may involve communities of interest that are related to the customer's telecommunications infrastructure.

C.4.1.1.2 Engineering Design

1. **Conceptual Design.** The contractor shall be capable of preparing a conceptual design that meets the customer's requirements. This task may require on-site visits to better understand system requirements, physical layouts, working conditions, power, heating, ventilation, and air conditioning requirements, and the need for site modifications. The customer will provide information such as existing user locations, network resources, GFE, facility support requirements, and other information identified in the order. Interviews shall be coordinated with the Government Point of Contact (POC) specified in the order. The contractor shall explain its recommendations in a *Technical Report*.
2. **System Design.** The contractor shall be capable of designing a communications system to integrate Government-provided hardware and software and that provided by various contractors (which may include the contractor), customer applications software, and existing networks as specified in the order. The contractor shall be capable of incorporating the following in the system design:
 - a. **Network services** such as resource sharing, network file services, network operating system services, and required features
 - b. **Network applications** such as electronic mail, file transfer, and remote access
 - c. **Network management** to bypass faults and impairments, monitor performance, and manage security functions
 - d. **Cabling and wiring** to meet intra-building, inter-building, MAN, and WAN connectivity requirements
 - e. **Government-Furnished Equipment** including cabling and wiring, network operating systems, and applications software. The contractor shall be capable of incorporating specified existing systems into the design to the extent feasible.
3. **Process Reengineering.** The contractor shall be capable of analyzing existing practices and procedures being used by the customer and recommending improvements. For example, the contractor shall be capable of analyzing the relationship between the agency and certain of its customers and recommending

process changes that will improve agency's effectiveness and customer satisfaction.

4. **E-Business Considerations.** The contractor shall be capable of recommending how increased use of the Internet may improve existing functions, the agency's effectiveness, and increase customer satisfaction. The contractor shall be capable of reviewing best E-business practices in the commercial sector and assessing their applicability to the customer's organization.
5. **Develop Applications Software.** The contractor shall be capable of developing applications software to support the engineering design recommended. This software may be designed and implemented to support collection of requirements data, integrate GFE, help the customer reengineer a process, or apply E-business best practices.
6. **Security Assessments.** The contractor shall be capable of analyzing and defining security requirements for the customer's information systems, which may include WANs, MANs, LANs, mainframes, workstations, and personal computers. The contractor shall be capable of designing solutions that meet security requirements, which may involve gathering information about an organization's mission goals and needs, business practices, existing security products, and ongoing information security programs. The contractor shall be capable of performing risk analyses of computer systems and applications, vulnerability assessments, developing contingency plans, accrediting systems, performing security audits, and providing security training during all phases of the system life cycle.

C.4.1.2 Systems Integration

The contractor shall be capable of supporting the customer in establishing necessary interfaces between the customer's systems and services and those being provided by various contractors (which may include the contractor). The contractor shall be capable of progressively linking, testing, and modifying as necessary the customer's system and service components that interface with the equipment and services and support systems provided by contractors and other customers and merge their respective functional characteristics into comprehensive, interoperable systems.

C.4.1.3 Installation and Testing

The contractor shall be capable of supporting the customer in installing and testing equipment, systems, services, features, and applications. Activities under this task may include, but are not limited to, the following:

1. Installing specified equipment, systems, services, and software

2. Developing *Acceptance Test Plans* for specified equipment, systems, services, features and applications that are part of the customer's telecommunications infrastructure to ensure:
 - a. Each item of equipment, each system, each service, and each feature performs to specification
 - b. The customer's terminals and applications perform to specification on an end-to-end basis
3. Support the acceptance testing of specified equipment, systems, services, features, and applications software to ensure that each functions as required.
4. Support the customer in working with each contractor or outside customer to resolve any problems.

C.4.1.4 Operations Support

The contractor shall be capable of operating and maintaining the customer's infrastructure. This task may involve the following subtasks:

C.4.1.4.1 Performance

The performance requirements shall be specified in the order and may be based upon a Service Level Agreement. The contractor shall be capable of helping the customer negotiate, implement, and administer appropriate Service Level Agreements with specified contractors.

C.4.1.4.2 Moves, Adds, and Changes

The contractor shall be capable of executing moves, adds, and changes for elements of the infrastructure or other tasked systems, including subsystems (such as voice messaging systems, LANs, or WANs). Routine moves, adds, and changes shall be completed within two business days, and expedited moves, adds, and changes shall be completed within one business day or as specified in the order. Should the customer determine that any move, add, or change requires immediate attention, the contractor shall be capable of coordinating the timetable with the designated task manager on an individual case basis.

The contractor shall be capable of providing labor and materials needed to provide connectivity to the infrastructure or other specified systems. Components include, but are not limited to, cable, wire, jacks, connectors, phones, modems, station cards, servers, concentrators, and hub modules.

C.4.1.4.3 Acquisition Support

The contractor shall be capable of supporting the customer in acquiring new equipment, software, and services from its various contractors to support its telecommunications infrastructure. Examples of provisioning tasks include but are not limited to:

1. Updating the customer's requirements.
2. Identifying the contractor and the equipment, software, and services that best meet the customer's requirements.
3. Preparing orders.
4. Tracking, changing, and accepting orders.
5. Supporting site preparation activities.
6. Coordinating with the contractors to assure timely and efficient installation of the new equipment and services and removal of old ones. For example, the contractor shall be capable of installing or removing in-house wiring and cable systems.
7. Coordinating connectivity to the newly acquired systems that support the customer's telecommunications infrastructure, including, but not limited to, adjunct installation or removal of equipment, software, and services and testing.
8. Support provisioning of associated support systems, such as configuration management or account management systems.
9. Other tasks requested by the customer to meet the requirements. For example, the contractor shall be capable of changing the billing system to interface with the customer's collections system and general ledger.

C.4.1.4.4 Inventory Management

The contractor shall be capable of storing additional information in the *Inventory File* specified in Section C.3.1.5. For example, the contractor also shall be capable of tracking, by customer and building, the inventory of lines, equipment, supplies, services, features, telephone numbers, e-mail addresses, etc. The contractor shall be capable of assessing if the customer's inventory is satisfactory, excessive, or in need of replenishment and maintaining this *Inventory File* online for real-time access by the customer. If so tasked, the contractor shall update this file twice a month.

C.4.1.4.5 Configuration Management

The contractor shall be capable of managing the system configuration designated in the

order(s), including hardware (e.g., cabling and wiring), software, media, firmware, and associated documentation of the system and the procedures used to manage its configuration. The contractor shall be capable of including the installation configuration (such as interrupt settings, network addresses and names, dip switch settings, parameter settings, and strappings) to assist in maintenance. The contractor shall be capable of maintaining the configuration information being managed in an online *Configuration Management File* and to provide electronic access to the customer. If so tasked, the contractor shall update this file twice a month or within one business day after changes occur.

C.4.1.4.6 Billing and Account Management Support

The contractor shall be capable of supporting the customer in performing his ordering, customer service, billing, billing verification, and telecommunications-related account management functions. This support may include integration of contractors' operations support systems with the customer's legacy systems. Contractor responsibilities may include requirements definition, design, development, prototyping, implementation, integration, testing, acceptance, operation, and maintenance. Examples of tasks that the contractor shall be capable of performing include the following:

1. Development of customer service, ordering, billing, billing verification, and account management requirements.
2. Customizing, implementing, testing, and maintaining COTS support packages for customer service, ordering, billing, billing verification, and account management functions.
3. Development of applications software to meet these requirements.
4. Prototyping new support systems features.
5. Integrating and testing legacy customer service, ordering, billing, billing verification, dispute handling, trouble handling, and other telecommunications-related account management systems.
6. Managing customer service, ordering, billing, and other account management systems specified in the order.
7. Preparing consolidated invoices or bills for services rendered by the customer's multiple providers.

8. Managing databases and customer relationship management systems regarding user profiles, order data, billing data, disputes, troubles, and other data pertaining to the customer's users, telecommunications equipment and services, or support systems.
9. Processing user billing inquiries.
10. Implementing, operating, and maintaining billing verification systems and/or software.
11. Verifying that services charged were ordered, rendered, and priced correctly.
12. Reconciling discrepancies with the service providers.
13. Verifying that charges were allocated to the correct cost centers and users.
14. Providing information and reports for the customer's accounting system.
15. Support the customer in preparing payments and collections for the customer's suppliers.

C.4.1.4.7 LAN/MAN/WAN Operations Support

The contractor shall be capable of managing LANs, MANs, or WANs. If so tasked, the scope of the task may include, but not be limited to, the following:

1. Management of the customer's intranets, extranets, Internet, E-business, telephony and any other associated networking systems, including the support necessary to develop, implement, and maintain such systems.
2. Implementation and operation of appropriate security systems, including virus detection software and procedures to restart/recover from virus attacks.
3. Web server support including web page development, updates, and maintenance.
4. Management of preventive maintenance activities.
5. Manage contractors' remedial emergency repairs when hardware malfunctions occur.
6. Maintain the maintenance records on the equipment.
7. Backup the tapes, disks, or whatever medium is used. Load system software at customer-specified locations at least once every business day unless otherwise specified in the order. Maintain separate documentation until the system database information is on a backup medium.

8. Develop operations, administrative, and quality assurance back-up plans and procedural documentation.
9. Provide standby systems (perhaps at other locations) for backup support in the event of a prolonged outage.

C.4.1.4.8 Call Center Operations Support

For purposes of this contract, call centers are synonymous with “contact centers.” By definition, a call center is a central point for placing and receiving calls via telephone, e-mail, the Internet, or other means that are related to the operations and maintenance of the customer’s telecommunications infrastructure.

The contractor shall be capable of defining requirements, designing, implementing, and maintaining call centers that support the agency’s telecommunications infrastructure. The tasks that the contractor may be requested to perform include the following:

1. Functional and technical requirements definition, data collection, validation and analyses
2. System design and analyses
3. Support the customer in negotiating SLAs with the supporting contractors
4. Hardware and software selection and acquisition
5. Hardware and software installation, configuration, administration, and management
6. System implementation and installation support, including programming, testing, and performance verification
7. Site design and selection
8. Call center workstation layout and design
9. Call routing and network design, implementation, and management
10. Interactive voice response system design, implementation, and management
11. LAN/WAN and Web system design installation, administration, and management
12. Telephone, e-mail, facsimile, and Web systems integration planning, implementation, and management
13. Accessibility and accommodation design, implementation, and management
14. Network security and access control
15. Monitoring, initialization, maintenance, testing, and acceptance of all hardware and software components

16. Remote management and diagnostics for call center systems
17. Service monitoring and quality control, including monitoring from remote locations
18. Disaster recovery services following operational or equipment failure

C.4.1.4.9 Voice and/or Video Conferencing Support

The contractor shall be capable of defining requirements, designing, implementing, operating, and managing a voice and/or video conferencing network that support the agency's telecommunications infrastructure. The tasks that the contractor shall be capable of performing include the following:

1. Functional and technical requirements definition, data collection, validation and analyses
2. System design and analyses
3. Support the customer in negotiating SLAs with the supporting contractors
4. Hardware and software selection and acquisition
5. Hardware and software installation, configuration, administration, and management
6. System implementation and installation support, including programming, testing, and performance verification
7. Site design and selection
8. Desktop layout and design
9. Portable terminal layout and design (video conferencing only)
10. Conference room layout and design
11. Telephone, e-mail, facsimile, and Web systems integration planning, implementation, and management
12. Accessibility and accommodation design, implementation, and management
13. Network security and access control
14. Monitoring, initialization, maintenance, testing, and acceptance of all hardware and software components
15. Remote management and diagnostics for voice and video conferencing systems
16. Service monitoring and quality control, including monitoring from remote locations
17. Disaster recovery services following operational or equipment failure

C.4.1.4.10 Customer Service and Technical Support

The contractor shall be capable of providing customer service and technical support. These tasks may include, but are not limited to:

1. Coordinating and managing the customer's directory services
2. Assisting users in identifying requirements and acquiring equipment and services
3. Developing and operating a user Help Desk to serve users of voice, data, and/or video services
4. Developing and operating the customer's Web page and bulletin boards
5. Responding to user inquiries
6. Providing set maintenance and repairs
7. Executing moves, adds and changes
8. Reporting troubles to network service providers
9. Coordinating emergency restoration of the customer's telecommunications infrastructure
10. Assisting users in interpreting and verifying billing statements
11. Conducting user surveys
12. Providing training
13. Supporting user forums and other user activities
14. Providing other required customer service support

C.4.1.4.11 Network Management Support

The contractor shall be capable of providing a network management system that includes all the necessary hardware, software, and labor and is fully compatible with the equipment and software specified in the order. The network management system shall provide a common platform for managing the network and providing system administration, control, logging and security management for the network. The network management system shall comply with accepted industry standards. It shall be capable, but not limited to, the execution of the set of functions required for controlling, planning, allocating, deploying, coordinating, and monitoring the resources of a telecommunications network, including performing functions such as initial network planning, bandwidth allocation, predetermined traffic routing to support load balancing, cryptographic key distribution, authorization, configuration management, fault management, security management, performance management, and account management.

The contractor shall be capable of providing a network management system that incorporates

the use of SNMP and is capable of managing WANs, MANs, and LANs.

The contractor shall be capable of providing network management capability that provides both network management and server monitoring of the following functional areas:

1. Network traffic volume and pattern
2. Node performance and traffic control
3. Disk monitoring and utilization
4. Central Processor Unit (CPU) utilization

The contractor's network management capability shall be capable of generating a *Source and Destination Connectivity Matrix* for LAN traffic on the basis of names and IP addresses given to network devices. This connectivity matrix shall be capable of being updated automatically when new nodes are installed and shall be accessible to all network management applications.

The network management capability shall identify and bypass faults and impairments and restore service in accordance with the requirements in the order. The network management capability shall provide audible alerts to notify users of fault, performance, and security alarms and shall display color-coded status of monitored devices on the network to help users identify devices experiencing problems.

The network management capability shall be sized to meet the capacity requirements specified in the order.

C.4.1.4.12 Security Functions

The contractor shall be capable of performing IT and telecommunications security functions on an ongoing basis including, but not limited to, risk analyses, vulnerability analysis, analysis of physical and software security operations, both active and passive, operation and maintenance of anti-intrusion systems for software, virus/worm detection and neutralization, and preventive measures, and restart/recovery from virus attacks and backup procedures in accordance with Government regulations. The contractor shall be capable of notifying the customer immediately of an unauthorized attempt to penetrate the infrastructure. In no case shall the contractor delay more than an hour before notifying the customer.

C.4.1.4.13 Maintenance

The contractor shall be capable of maintaining the installed equipment and services and other tasked systems. If so tasked, preventive maintenance on related equipment shall be performed on a scheduled basis, and the contractor shall provide a maintenance Point of Contact during the Normal Business Day or as specified in the order (see Section C.2.4).

The contractor shall be capable of establishing and maintaining a *Maintenance Plan* in an electronic format. The customer may change maintenance plans with at least 60 calendar day's written notice to the contractor.

The maintenance program shall include periodic tests, inspections, and preventive maintenance according to the OEM's recommended practices. The contractor shall be capable of including the following in the maintenance program:

1. Routine testing to ensure that circuits, equipment, systems, services, and features are operating within their specified limits.
2. Reporting procedures for circuits, equipment, systems, services and features that are out of service or outside of specified thresholds and follow-up on the status of required equipment and services.
3. Outage logs and reports on circuits, equipment, systems, services and features for which credits are due.
4. Preventive maintenance schedules.
5. Maintenance and repair staffing needs.

The contractor shall be capable of coordinating with the local telephone company and other contractors concerning maintenance of equipment, systems, and services. However, the contractor shall not order, install, or place in service any type of equipment or service that obligates charges to the Government unless the Government has issued an order.

If preventive maintenance will interrupt or adversely impact an essential function of the infrastructure or other specified system, the work shall be scheduled, to the extent feasible, outside normal work hours or as specified in the order. The work shall be coordinated with the DAO at least 24 hours in advance when this schedule cannot be followed. The contractor shall minimize the duration of any such interruptions.

C.4.2 Personnel Requirements

The contractor shall be capable of providing skilled personnel that meet the requirements specified in this section and in the order. Personnel requirements fall into three subcategories, Professional Series, Technical Series, and E-Business Series. The contractor shall be capable of retaining additional expertise as necessary to meet specific requirements, subject to review and approval by the customer.

Personnel retained under this contract shall meet the following general requirements:

1. The replacement resume for the Program Manager shall be approved by the GSA ACO prior to placement. Position descriptions for all other types of staff proposed

shall be incorporated into the product database defined in Section B.4. Replacement resumes and position descriptions for other required personnel shall be approved by the Issuing Office DAO. The required format of these resumes and position descriptions is specified in Section J.8.

2. The functional personnel requirements are specified in the balance of this section. At a minimum, the contractor is required to retain personnel that meet these requirements. The offeror may enhance the breadth of his offering by proposing relevant skill categories that are not specified and may enhance the depth of its offering by proposing multiple skill levels for certain required positions. The offeror shall describe the education and experience requirements he proposes to require for each skill level using Tables C.4.2-1 and C.4.2-2. In his price volume, the offeror shall identify the skill levels proposed using a triplet composed of the position code in Table C.4-3, the education code in Table C.4-1, and the experience code in Table C.4-2. For example, a Quality Assurance Engineer with a bachelor’s degree and seven years of experience would have a Skill Level of (QA, 3, 3). The Government will use these descriptions to evaluate Support Services proposals in accordance with Section M.

Table C.4-1. Offeror’s Education Requirement

Education Level	Education Code
High school diploma	1
Technical school	2
Bachelor’s degree	3
Masters degree	4
Doctoral degree	5

Table C.4-2. Offeror’s Experience Requirement

Experience in Years	Experience Code
0 – 2	1
3 - 5	2
6 – 9	3
10 – 15	4
> 15	5

Table C.4-3. Position Codes

Position Title	Position Code
Professional Series	
Program Manager (Task Order – Not Required)	PM
Site Manager	SM

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Position Title	Position Code
Systems Integration Engineer	SN
Network Engineer	NE
Local Area Network/Metropolitan Area Network/Wide Area Network Integrator	LI
Quality Assurance Engineer	QA
Information Assurance System Engineer	IA
Engineering Subject Matter Expert	EM
Technical Series	
Project Manager	MP
Operations Systems Manager	OM
Network Systems Manager	NM
Operations Systems Security Specialist	SS
Communications Analyst	CA
Database Manager/Administrator	DB
Applications Systems Analyst/Programmer	PA
Data/Configuration Management Specialist	CM
Quality Assurance Specialist	QS
Curriculum Developer	CU
Training Specialist	TS
Cable Installer	CI
Cable Splicer	CP
Test Technician	TT
Network Technician	NT
E-Business Series	
E-Business Engineer	EC
Business Process Engineer	BP
Web Architect	WA
Webmaster	WM

3. The ACO or the issuing office DAO may allow the contractor to substitute experience for education (vis a vis the requirements of this section and the position descriptions provided by the contractor) on an order-by-order basis.
4. Personnel shall be sufficiently fluent in English, including verbal and writing abilities, to meet the functional requirements of the position.
5. The contractor may be tasked under this contract to have access to information classified Secret or Top Secret. Upon award of such a task, the contractor shall be capable of obtaining security clearances for the appropriate personnel. The customer shall initiate and coordinate the clearance request, if necessary. If the contractor is not granted the required clearance within a reasonable period of time, the customer may terminate the order.

Information about obtaining the security clearances set forth in the order may be obtained from the following organization:

Defense Investigative Service Clearance Office
P.O. Box 2499
Columbus, OH 43216-5006
(614) 692-3176

C.4.2.1 Professional Series

The contractor shall have one Program Manager who shall be made available to respond promptly and fully to the Government's requirements. The Program Manager shall be responsible for the overall management of the CONNECTIONS contract and shall be free of conflicts of interest that may impair the contractor's effectiveness on this contract. (See Section H.8 – Organizational Conflicts of Interest.) The Program Manager shall be part of the contractor's proposal and effective upon the date of the award.

The management services of the contractor, including the services of the Program Manager, shall be billed as indirect charges unless the customer requires specified management support in the task order. These management services shall include, but are not limited to:

1. Managing multiple projects at multiple locations
2. Organizing, directing, planning, and producing all of the contractor's deliveries within negotiated time frames and budget constraints
3. Scheduling and assigning duties to subcontractors
4. Assigning, scheduling, and reviewing the work of employees assigned to a CONNECTIONS contract
5. Supervising task order personnel
6. Formulating and reviewing task order plans, reviewing deliverables, and ensuring conformity with requirements and standards
7. Meeting with Government personnel, contractor task leaders, and customer representatives
8. Supporting the equipment and services delivered under this contract to ensure to the maximum extent practical that they satisfy the requirements and needs of the customer

Other required personnel may be billed as direct charges. The contractor shall retain professional staff having expertise in the areas listed in this section or as specified in the order. These required personnel are representative, not exhaustive. The contractor shall retain additional professionals as necessary to provide solutions to customer requirements,

subject to review and approval by the customer.

C.4.2.1.1 Program Manager

The offeror is required to provide an overall Program Manager for contracts awarded under the Connections program whose services shall be billed as indirect charges. In addition the offeror may propose a Task Order Program Manager to provide program management services within the scope of an individual task order. The Task Order Program Manager may be billed directly.

C.4.2.1.1.1 Connections Program Manager

This is a description of the Connections Program Manager to be charged to overhead. This offeror shall not bid this labor category. This section is for general description of Program Manager qualifications only.

Responsible for overall management of the contract. Organizes, directs, and coordinates planning and production of all contract support activities. Must have excellent oral and written communication skills with a demonstrated capability for dealing with all levels of management personnel, contractor managers, and customer representatives. Responsible for the performance of all contract activities and order requirements. Meets with appropriate Government management personnel, other contractor managers, and customer representatives. Formulates and reviews strategic plans, marketing plans, subcontracting arrangements, and deliverables, determines contract costs, and ensures conformity with contract terms and conditions. Responsible for ensuring coordination between personnel below them and all central management functions within the organization and between those central management functions and appropriate Government personnel. Assigns, schedules, and reviews work of subordinates. Explains policies, purposes, and goals of the contractor's organization and the Government's policies and procedures applicable to this contract to subordinates. Takes appropriate action and coordinates policies and activities with appropriate Government personnel. Must be authorized to negotiate on behalf of and bind the contractor to contract provisions. Actively applies quality assurance measures to the management and performance of the contract.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Ten years of intensive and progressive experience in managing IT or engineering programs in the last 15 calendar years, which include five years experience supervising and managing personnel involved in IT projects, two years of intensive and progressive experience managing at least 20 or more IT or engineering professionals in subordinate groups and in diverse locations, one year managing complex organizations of which they had total responsibility for the financial success of the organizational unit, and

one year managing a significant Government contract. An additional five years of intensive and progressive experience in managing IT or engineering programs in the last 20 calendar years may be substituted for the required bachelor's degree.\

C.4.2.1.1.2 Task Order Program Manager

This is an optional labor category to be proposed if the offeror chooses to offer program management services to its customers within the scope of an individual task order that would be awarded under a Connections contract.

Responsible for overall management of the task order. Organizes, directs, and coordinates planning and production of all contract support activities. Must have excellent oral and written communication skills with a demonstrated capability for dealing with all levels of management personnel, contractor managers, and customer representatives. Responsible for the performance of all task order activities and order requirements. Meets with appropriate Government management personnel, other contractor managers, and customer representatives. Formulates and reviews strategic plans, marketing plans, subcontracting arrangements, and deliverables, determines task order costs, and ensures conformity with contract terms and conditions. Responsible for ensuring coordination between personnel below them and all central management functions within the organization and between those central management functions and appropriate Government personnel. Assigns, schedules, and reviews work of subordinates. Explains policies, purposes, and goals of the contractor's organization and the Government's policies and procedures applicable to this contract to subordinates. Takes appropriate action and coordinates policies and activities with appropriate Government personnel. Actively applies quality assurance measures to the management and performance of the task order.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Ten years of intensive and progressive experience in managing IT or engineering programs in the last 15 calendar years, which include five years experience supervising and managing personnel involved in IT projects, two years of intensive and progressive experience managing at least 20 or more IT or engineering professionals in subordinate groups and in diverse locations, one year managing complex organizations of which they had total responsibility for the financial success of the organizational unit, and one year managing a significant Government contract. An additional five years of intensive and progressive experience in managing IT or engineering programs in the last 20 calendar years may be substituted for the required bachelor's degree.

C.4.2.1.2 Site Manager

Responsible for the consulting, engineering, and operations activities performed at a

particular customer location. Identifies changes in telecommunications, computer, and systems technology and interprets their meaning to senior management and the customer. Provides technical assistance to facilitate planning, design, installation, modification, and operation of an information systems capability. Prepares long and short range plans for application selection, systems development, systems maintenance, production activities and for necessary support resources. Also responsible for applications systems analysis and programming activities for a group or section and for feasibility studies, time and cost estimates, and the establishment and implementation of new and revised applications systems and programs. Assists in projecting software and hardware requirements. Assigns personnel to various projects and directs their activities; reviews and evaluates their work and prepares performance reports. Confers with and advises subordinates on administrative policies and procedures, technical problems, priorities and methods. Consults with personnel in other information systems sections to coordinate activities. Prepares activity and progress reports regarding the activities at a particular customer site. Confers and consults with customer personnel regarding performance and scheduling issues.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Eight years of progressive and intensive experience managing in the last 12 calendar years, with at least two years of relevant experience in a position with duties commensurate to those defined in the order. Or five years specialized experience in a position with duties commensurate to those defined in the order.

An additional five years of experience managing computer science, scientific, or engineering projects may be substituted for a bachelor's degree.

C.4.2.1.3 Systems Integration Engineer

Designs, develops, and implements computer-communication networks that meet the customer's connectivity, throughput, and security requirements. Detailed knowledge of data communications devices, services, software, protocols, and interface requirements. Experienced in using satellite, microwave, broadband, fiber optic, voice, and digital telecommunication systems. Integrates communications with computer systems to provide comprehensive, interoperable systems solutions. Applies telecommunications and computer engineering principles and theory to propose design and configuration alternatives. Evaluates existing communications systems to identify deficiencies and network performance issues. Experienced with the planning that must be undertaken to adequately define requirements, acquire, and implement converged voice, data, and video communications equipment and software. Analyzes network performance, usage, and traffic flows, accesses and interfaces, transmission techniques, and protocols to interface with computer systems and adjusts the implementation to meet performance requirements. Consults with users, managers, and staff to ensure that deficiencies and alternatives have been fully identified and that the solution

meets requirements.

Educational Requirements: A Bachelor's degree in electrical engineering, computer science, or a related engineering or science discipline from an accredited college or university. Certification from appropriate training institutions is desirable.

Experience Requirements: This position requires a minimum of eight years experience, of which at least six years in the last nine calendar years must be specialized. Specialized experience may include design and systems integration experience with an equipment manufacturer, software supplier, systems integrator, engineering consulting firm, or an Internet Service Provider (ISP), a competitive local exchange carrier (CLEC), an interexchange carrier (IXC), or a local exchange carrier (LEC).

C.4.2.1.4 Network Engineer

Must have proven technical ability in LAN/WAN design and implementation. Excellent understanding of TCP/IP and routing protocols is needed. Attention to detail is required in managing complex changes to customer networks.

Act as the technology lead for designing the network and security platforms and technical lead supporting network. Other responsibilities includes security audits, assessments, design, implementation and configuration. Provides leadership, direction and vision in the support and deployment of network and security technologies. Works with project managers, business analysts and contractors on security solutions to address customer's security requirements. Researches and provides information on security related solutions. Performs software evaluations and testing of new and existing security solutions. Functions as a third level support resource on network products and problems that are in use. Must be able to assume responsibility and work autonomously in a professional manner. Can install, configure, and operate networks in highly complex environments with specific protocols and instruct and direct those doing these tasks as well. Can assume management responsibilities if required.

Educational Requirements: A Bachelor's degree in electrical engineering, computer science, or a related engineering or science discipline from an accredited college or university. Certification from appropriate training institutions, such as Cisco Certified Internet Expert (CCIE), Cisco Certified Internet Professional (CCIP), or Cisco Certified Network Professional (CCNP), is desirable.

Experience Requirements: This position requires a minimum of eight years experience, of which at least six years in the last nine calendar years must be specialized. Specialized experience may include design of LAN/WANs with a software supplier, systems integrator, engineering consulting firm or an ISP, CLEC, IXC, or a LEC.

C.4.1.2.5 Local Area Network/Metropolitan Area Network/Wide Area Network Integrator

Responsible for overall integration of service delivery arrangements involving LANs, MANs, and WANs including the planning, design, installation, maintenance, management and coordination of agency LAN/MAN/WAN interfaces with the customer's telecommunications service providers. Responsible for the technical, architecture, and engineering changes to customer LANs/MANs/WANs. Maintains technical currency and studies contractor equipment and services to determine those that best meet the customer's needs. Presents information to management, which may result in purchase and installation of hardware, software, or telecommunications services. Is typically a top level technical contributor with advanced knowledge and experience in the area of local and wide area networking, communications, and related hardware/software (e.g., bridges, gateways, routers, multiplexers, hubs). Recommends network security procedures and policies. Knowledgeable in many network topologies, protocols, and interfaces (e.g., Frame Relay, ATM, GigE). Also experienced in working in a multiple operating systems environment (e.g., Desktop, Server, Network Operating System).

Educational Requirements: Bachelor's degree in electrical engineering, computer science, a physical science, engineering, or a mathematics-intensive discipline from an accredited college or university. Certification from appropriate training institutions is desirable.

Experience Requirements: Five years of progressive and intensive experience in telecommunications and computer integration with two specialized years of experience in the last four calendar years in a position with duties commensurate to those defined in the above specification.

C.4.2.1.6 Quality Assurance Engineer

Responsible for development of project Quality Assurance Plans and the implementation of procedures that conform to the requirements of the contract. Responsible for verifying that each functional component of the project follows a defined process that conforms with contractual requirements. Reports findings to project staff, line management, and the customer, as appropriate. Provides an independent assessment of how the project's development process is being implemented relative to the defined process and recommends methods to optimize the contractor's process.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Seven years experience of increasing complexity in the last 10 calendar years with the planning, organization, and control of quality procedures for complex development projects and experience in developing software and associated documents. An

additional five years of related experience with computer science, scientific, or engineering projects may be substituted for the bachelor's degree.

C.4.2.1.7 Information Assurance System Engineer

Establishes and satisfies complex system-wide information security requirements based upon the analysis of user, policy, regulatory, and resource demands. Supports customers at the highest levels in the development and implementation of doctrine and policies. Provides leadership and guidance in the development, design, and application of solutions implemented by more junior staff members. Coordinates with senior representatives within the customer organization to establish and define programs, resources, and risks. Applies expertise to Government and commercial common user systems, as well as to dedicated special purpose systems requiring specialized security features and procedures. Examples could include classified intelligence and command and control-related networks.

Provides guidance and direction to other professionals, acts in a consulting and/or advisory capacity, coordinates resolution of highly complex problems and tasks, possesses ability to meet and operate under deadlines.

Educational Requirements: Bachelor's degree from an accredited college or university. Requires an expert understanding of security policy advocated by the U.S. Government.

Experience Requirements: Ten years of experience of increasing complexity in the last 15 years developing and implementing information assurance technology programs and policy. An additional five years (15 years total) of intensive and progressive experience in the last 20 calendar years may be substituted for the required bachelor's degree.

C.4.2.1.8 Engineering Subject Matter Expert

Provides technical knowledge and skill in using specialized applications in the areas specified in the order. Experienced in the operational environment and using high-level functional systems analysis, design, integration, documentation, and implementation methodologies on complex problems that require in-depth knowledge of the subject matter for effective implementation. Participates as needed in all phases of engineering design and software development with emphasis on the planning, analysis, testing, integration, documentation and presentation phases. Applies principles, methods and knowledge of the functional area of expertise to specific order requirements and in the process uses advanced mathematical principles and methods to arrive at practical, innovative solutions. Designs and prepares technical reports, data bases, studies, and related documentation, makes charts and graphs to record results. Prepares and delivers presentations and briefings as required by the order. Has knowledge of security requirements for specialized information transfer applications and is skilled in preparing technical reports and providing other services

required by the order.

Educational Requirements: Bachelor's degree from an accredited college or university in engineering, computer science, or a mathematics-intensive discipline that provides substantial knowledge and skill in engineering large, complex projects that are closely related to the work required by the order.

Experience Requirements: Five years of intensive and progressive experience in the last eight calendar years in the individual's field of study and specialization.

C.4.2.2 Technical Series

Personnel in the Technical Series are usually involved in the installation, testing, operations, and maintenance of the customer's telecommunications infrastructure.

C.4.2.2.1 Project Manager

Responsible for large projects or a significant segment of a large complex project. Translates customer requirements into formal agreements and plans that culminate in customer acceptance of results while meeting business objectives. Works with customer to identify business requirements and develops the proposed solution. Subsequently leads a team in initiating, planning, controlling, executing, and closing tasks of a project or segment of a project to produce the delivered solution. Executes a wide range of process activities beginning with the initial technical response to an order through development, test and final delivery. Formulates partnerships between customer, suppliers, and staff. Anticipates potential project related problems. Uses refined techniques for identifying, eliminating, or mitigating solution, project, and business risks. Understands customer, industry, and business trends. Applies this understanding to meet project objectives. As appropriate, challenges the validity of given procedures and processes to enhance or improve them. Analyzes information and situations and implements actions, independently or through the management team, to ensure project objectives are met. Analyzes new and complex project related problems and creates innovative solutions involving finance, scheduling, technology, methodology, tools, and solution components.

Educational Requirements: Bachelor's degree from an accredited college or university that provides substantial knowledge of information sciences.

Experience Requirements: Six years of intensive and progressive experience in the last nine calendar years demonstrating the required proficiency levels related to the order. An additional five years of experience managing computer science, scientific, or engineering projects may be substituted for a bachelor's degree.

C.4.2.2.2 Operations Systems Manager

Provides assistance for all information systems operations activities, including computer and telecommunications operations, data entry, operations support, and operating systems programming. Provides input to policy level discussions regarding standards and budget constraints. Assigns task personnel to projects and directs their activities, reviews and evaluates their work, and prepares performance reports. Confers with and advises subordinates on administrative policies and procedures, technical problems, priorities, and methods. Consults with personnel in other operations support sections to coordinate activities. Prepares activity and progress reports regarding information systems operations.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Eight years of progressive and intensive experience managing with at least two years of relevant experience in the last four calendar years in a position with duties commensurate to those defined in the order. Or five years of specialized experience in the last eight calendar years in a position with duties commensurate to those defined in the order. An additional five years of experience managing computer-communications systems may be substituted for the bachelor's degree.

C.4.2.2.3 Network Systems Manager

Supervises personnel engaged in the operation and support of network facilities, including all communications equipment in large scale or multi-shift operations. Assigns personnel to various projects and directs their activities, reviews and evaluates their work, and prepares performance reports. Confers with and advises subordinates on administrative policies and procedures, technical problems, priorities and methods. Supervises complex operations that involve two or more additional functions, such as network operations, systems software support, and production support activities.

Educational Requirements: Bachelor's degree from an accredited college or university in computer science, engineering, or a mathematics-intensive discipline. Applicable training certificates from accredited training institutions are desirable.

Experience Requirements: Five years of increasingly complex and progressive experience in computer system/network management. Includes two years of specialized experience in the last four calendar years related to the task. An additional five years of experience managing computer-communications systems may be substituted for the bachelor's degree.

C.4.2.2.4 Operations Systems Security Specialist

Provides technical knowledge and analysis of information assurance, to include applications,

operating systems, physical security, networks, risk assessment, critical infrastructure continuity and contingency planning, emergency preparedness, security awareness and training. Provides analysis of existing system's vulnerability to possible intrusions, resource manipulation, resource denial and destruction of resources. Provides technical support and analysis to document organizational information protection framework, and supports policy and procedures preparation and implementation.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Seven years of substantial experience in systems operations in the last 11 calendar years. An additional five years of related experience managing computer-communications security systems may be substituted for the bachelor's degree.

C.4.2.2.5 Communications Analyst

Assists in the planning, design, implementation, and operation of communications networks. Responsible primarily for the assessment and optimization of network design through review and assessment of user needs. Conducts feasibility studies for large projects, develops requests for proposals, evaluates contractor equipment, and makes recommendations on selection. May provide guidance and training to less experienced analysts.

Educational Requirements: High school graduate with applicable training certificates from accredited training institutions.

Experience Requirements: Requires seven years experience in telecommunications with strong emphasis in network design and traffic engineering in the last 10 calendar years and experience working with equipment contractors and carriers.

C.4.2.2.6 Database Manager/Administrator

Administers computer databases. Assigns contractor-supplied personnel to various projects and directs their activities; reviews and evaluates their work and prepares performance reports. Confers with and advises subordinates on administrative policies and procedures, technical problems, priorities and methods. Consults with and advises users of the various databases. Projects long-range requirements for database administration and design in conjunction with other managers in the information systems function. Prepares activity and progress reports regarding the database management section. Must have skill using Microsoft Access.

Educational Requirements: Bachelor's degree from an accredited college or university. Appropriate certification from training institutions is desirable.

Experience Requirements: Seven years in the last 11 calendar years of increasingly

complex and progressive experience in performing systems analysis, development, and implementation of business, mathematical, or scientific settings using a variety of information technology resources. An additional five years of experience managing computer science or engineering projects may be substituted for the bachelor's degree.

C.4.2.2.7 Applications Systems Analyst/Programmer

Formulates and defines system scope and objectives. Prepares detailed specifications for programs. Designs, codes, tests, debugs and documents programs. Works in all phases of applications, systems analysis, and programming activities. Provides guidance and training to less experienced analysts/programmers.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Five years of increasingly complex and progressive experience in the last eight calendar years in performing systems analysis, development, and implementation for business, mathematical, engineering or scientific settings using a variety of information technology resources. An additional five years of experience in related areas may be substituted for the bachelor's degree

C.4.2.2.8 Data/Configuration Management Specialist

Responsible for configuration management support. Describes provisions for configuration identification, change control, configuration status accounting, and configuration audits. Responsible for configuration planning. Identifies and maintains the original configuration of requirements documentation, design documentation, software, and related documentation. Responsible for configuration change control. Regulates the change control process so that only approved and validated changes are incorporated into configuration control documents and related software. Responsible for configuration status accounting. Tracks all problems and changes in configuration control documents and software and reports changes and current configuration. Responsible for configuration audits. Supports audits to verify that requirements of all baselines have been met by the as-built software. Supports quality assurance process audits.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Five years experience of increasing complexity with data management or configuration management in the last eight calendar years in the field of software development or computer-communications engineering. An additional five years of experience working in related computer science or engineering projects may be substituted for the bachelor's degree.

C.4.2.2.9 Quality Assurance Specialist

Responsible for development of project quality assurance plans and the implementation of procedures that conform to the requirements of the contract. Responsible for verifying that each functional component of the project follows a defined process that conforms to contractual requirements. Reports findings to project staff, line management, and the customer, as appropriate. Provides an assessment of how the project's development process is being implemented relative to the defined process and recommends methods to optimize the organization's process.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Five years experience of increasing complexity in the last eight calendar years with the planning, organization, and control of quality assurance procedures for complex development projects and experience in developing software and associated documents. An additional five years of experience working in related computer science or engineering projects may be substituted for the bachelor's degree.

C.4.2.2.10 Curriculum Developer

Responsible for identifying appropriate instructional strategies, learning strategies, and theories for the learning materials being developed and the technologies that are best suited for presenting the learning materials. Has a strong foundation of the instructional design principles and process. Assesses, designs, develops, implements, and evaluates instructional materials. Must have good communication and coordination skills to communicate with both content experts and clients to determine the objectives/goals, scope, and content of the materials to be learned.

Experience with designing content, user-interface design, and storyboards for computer-based multimedia training, video scripts, audiotape scripts, or web-based training. Experienced using web-based technologies and has a thorough knowledge of XML, HTML, PhotoShop, Illustrator, Visual Basic, Java, and or other design and or developer-related applications, systems analysis and programming activities.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Five years of increasingly complex and progressive experience in curriculum development. An additional five years of experience in related areas may be substituted for the bachelor's degree.

C.4.2.2.11 Training Specialist

Conducts research necessary to develop and revise comprehensive courses and prepares

appropriate training materials. Prepares all training material (course outline, background material, and training aids). Prepares all student material (course manuals, workbooks, handouts, exercises, completion certificates and course critique forms). Provides support, including train the trainer, formal classroom training courses, computer-based training, web-based instruction, workshops, exercises, and seminars. Demonstrates excellent interpersonal written and oral communication skills.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: Five years experience of which a minimum of two years must be specialized in the delivery of training instruction and services. Five years of progressive related experience in the past eight years may be substituted for the Bachelor's degree.

C.4.2.2.12 Cable Installer

Installs or oversees installation of telephone, coaxial, and fiber optic cables, including vertical and horizontal cable pairs to the desktop. Locates and diagnoses signal transmission defects using various test equipment and visual inspection. Uses tools and related test equipment, ground power equipment, and pressure equipment. Prepares necessary reports. Communicates effectively with technical and management personnel.

Educational Requirements: High school graduate. A certificate from an accredited institution for training that is directly related to the task or equipment to be used may be substituted for a high school diploma.

Experience Requirements: Requires at least four years of experience in installing, modifying, and troubleshooting copper and fiber optic cable.

C.4.2.2.13 Cable Splicer

Splices, inspects, maintains, overhauls, repairs, and installs splice cases for telephone, coaxial, fiber optic, and outside plant cable. Locates and diagnoses signal transmission defects using various test equipment and visual inspection. Uses cable splicing and lineman's tools and related test equipment, ground power equipment, and pressure equipment. Communicates effectively with technical and management personnel.

Educational Requirements: High school graduate. A certificate from an accredited institution for training that is directly related to the task or equipment to be used may be substituted for a high school diploma.

Experience Requirements: Requires at least four years of experience in the last eight calendar years in installing, modifying, and troubleshooting aerial and underground copper and fiber optic cable.

C.4.2.2.14 Test Technician

Expert in testing complex software/hardware applications. Responsible for ensuring that the test design and documentation support all applicable customer or accepted industry standards, schedules, and budgets. Experienced using the test equipment. Responsible for ensuring that testing conclusions and recommendations are fully supported by test results and project managers are fully informed of testing status and application deviations from documented user requirements.

Educational Requirements: High school graduate. A certificate from an accredited institution for training that is directly related to the task or equipment to be used may be substituted for a high school diploma.

Experience Requirements: Five years of intensive and progressive experience in a computer or telecommunications related field. Two years within the last four calendar years of intensive and progressive experience in performing software testing for complex software and hardware applications and/or systems.

C.4.2.2.15 Network Technician

Monitors and responds to complex hardware, software, and network problems using a variety of hardware and software testing tools and techniques. Provides primary interface with contractor's technical support groups or provides internal analysis and support to ensure appropriate notification during outages or periods of degraded system performance. Provides LAN server support. Requires extensive knowledge of PC/LAN communications hardware and software in multi-protocol environment and network management software. May function as task lead providing guidance and training for less experienced technicians.

Educational Requirements: High school graduate. A certificate from an accredited institution for training that is directly related to the task or equipment to be used may be substituted for a high school diploma.

Experience Requirements: Five years of increasingly complex and progressive experience in the last eight calendar years in computer system/network engineering. Includes two years of specialized experience related to the task.

C.4.2.3 E-Business Series

This subcategory responds to the customer's requirement to use best E-business practices and

includes support of the customer's Internet activities.

C.4.2.3.1 E-Business Engineer

Applies process improvement and reengineering methodologies and principles with Internet-related methodologies to conduct process modernization projects. Responsible for the effective transitioning of existing organizations or project teams and the facilitation of project teams in the accomplishment of the organization's goals or project activities and objectives through the improved use of the Internet and intranets. Provides group facilitation, interviewing, training, and provides additional forms of knowledge transfer. Key coordinator between customers and multiple project teams to ensure enterprise-wide integration of reengineering efforts and application of best E-business practices. Provides daily supervision and direction to Business Process Engineers and Web Architects.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: This position requires a minimum of seven years experience, of which at least five years must be specialized and at least two years in the last four calendar years must involve intense use of the Internet or intranets to improve business processes. Specialized experience may include: facilitation, training, methodology development and evaluation, process reengineering across all phases, identifying best practices, change management, business management techniques, organizational development, activity and data modeling, or information system development methods. An additional two years (four years total) of intensive and progressive experience in the last six calendar years may be substituted for the required bachelor's degree.

C.4.2.3.2 Business Process Engineer

Applies process improvement and reengineering methodologies and principles to conduct process modernization projects. Key coordinator between multiple project teams to ensure enterprise-wide integration of reengineering efforts. Familiar with E-business and its applicability to Government organizations.

Educational Requirements: Bachelor's degree from an accredited college or university.

Experience Requirements: This position requires a minimum of five years experience, of which at least three years in the last five calendar years must be specialized. Specialized experience may include: training, methodology development and evaluation, process reengineering across all phases, identifying best practices, change management, business management techniques, organizational development, activity and data modeling, or information system development methods. An additional three years of specialized experience may be substituted for the required bachelor's degree.

C.4.2.3.3 Web Architect

Designs and builds web sites using a variety of graphics software applications, techniques, and tools. Designs and develops user interface features, site animation, and special effects elements. Contributes to the design group's efforts to enhance the look and feel of the organization's on-line offerings. Designs the website to support the organization's strategies and goals relative to external communications. Typically requires a college degree in computer science, with minors in fine arts or graphic design. Requires understanding of web-based technologies and thorough knowledge of eXtensible Markup Language (XML), HyperText Markup Language (HTML), Photoshop, Illustrator, and/or other design related applications.

Educational Requirements: Bachelor's degree from an accredited college or university. Applicable training certificates from accredited institutions are desirable.

Experience Requirements: Four years of intensive and progressive experience in the last six calendar years in an Internet related field including development and design of software systems and Web development. An additional three years of specialized experience may be substituted for the required bachelor's degree.

C.4.2.3.4 Webmaster

Updates web sites using a variety of graphics software applications, techniques, and tools. Contributes to the design group's efforts to enhance the look and feel of the organization's on-line offerings. Upgrades the website to support the organization's strategies and goals relative to external communications. Requires understanding of web-based technologies and thorough knowledge of XML, HTML, Photoshop, Illustrator, and/or other design related applications.

Educational Requirements: Associates degree in computer science with a minor in fine arts or graphic design from a two-year college or an applicable training certificate from an accredited institution.

Experience Requirements: Three years of intensive and progressive experience in the last five calendar years in a computer related field including development and design of software systems and Web development. An additional two years of specialized experience may be substituted for the required associate's degree.

C.5 SOLUTIONS

A contractor that provides products and services under the Solutions category of the contract shall be capable of providing the full service within the subcategory proposed, not just *a la*

carte service. Full service is defined as providing the following:

1. Consulting
2. Systems Integration
3. Installation and Testing
4. Operations Support

The contractor may propose solutions to a customer's order using commercially available products and services or customized approaches. For example, the contractor may be tasked to establish the telecommunications infrastructure of a new building, move the customer to a new location, or upgrade the customer's infrastructure to provide video conferencing to the desktop.

Solutions contractors may propose personnel of their choosing. They are not constrained to use any of the personnel listed in Section C.4.2. If they propose to use skill levels that are not specified in Section C.4.2, they shall provide a position description for each new skill level proposed and indicate why it is needed to provide the proposed solution.

In order to be considered for an award under the Solutions category of the CONNECTIONS RFP, the offeror shall propose the equipment and services needed to address the entire category or the subcategory they propose. The allowable subcategories are specified in Section C.5.2. The offeror shall demonstrate expertise in each of the above mandatory support services as they apply to the subcategory proposed.

C.5.1 Mandatory Solutions Support Services

C.5.1.1 Consulting Services

Contractors shall be capable of providing the consulting services described in Section C.4.1.1.

C.5.1.2 Systems Integration

The contractor shall be capable of supporting the customer in establishing necessary interfaces between the customer's systems and services and those provided by the contractor. The detailed specifications may be found in the order. The contractor shall be capable of assuming responsibility for the operational use of the system and ensure that the systems meet the performance requirements specified in the order or the associated Service Level Agreement.

C.5.1.3 Installation and Testing

The contractor shall be capable of installing and testing equipment and services acquired under this contract in accordance with the terms and conditions of Section E (Inspection and Acceptance) and the order. The contractor also shall be capable of assuming responsibility for adjunct installation activities and for managing installation activities performed by other contractors on the customer's infrastructure. For example, the contractor shall be capable of interfacing with tariffed and non-tariffed communications carriers for circuit orders and services. If so tasked, the contractor shall make a pre-installation inspection to check the status of site preparation activities and inventory the delivered equipment and circuits.

The contractor shall be capable of establishing and maintaining "as-built" drawings and prepare a final report on the installation and testing activities.

The contractor shall be capable of supporting the customer in testing systems, services, features, and applications acquired from other contractors. Activities under this task may include, but are not limited to, the following:

1. Developing *Acceptance Test Plans* for specified equipment, systems, services, features and applications that are part of the customer's telecommunications infrastructure to ensure that:
 - a. Each item of equipment, each service, and each system performs to specification.
 - b. The customer's terminals and applications perform to specification on an end-to-end basis.
2. Support the acceptance testing of specified equipment, systems, services, features, and applications to assure that each functions as required.
3. Support the customer in working with each contractor or other customer to resolve any problems.

C.5.1.4 Operations Support

The contractor shall be capable of operating and maintaining specified portions of the customer's telecommunications infrastructure under the Solutions category of the contract if the contractor has provided some of the associated equipment. The contractor shall be capable of maintaining overall system availability to exceed 99.9% or as otherwise specified in the order or Service Level Agreement. The contractor shall be capable of designing, implementing, and managing LAN/MAN/WANs or other specified systems to support a response time of no greater than three seconds 95 percent of the time, where the computer system's response time, by definition, is the number of seconds it takes from the moment the user initiates an activity (usually by pressing an ENTER key or a mouse button) until the computer begins to present results on the user's display or printer. The contractor also shall

be capable of managing the communications portion of the infrastructure, including the interface with network service providers from other Government contracts, in accordance with the Service Level Agreements.

The contractor shall be capable of performing a number of functions, including those listed below:

1. Help the customer negotiate appropriate Service Level Agreements with specified contractors (C.4.1.4.1)
2. Provide acquisition support (C.4.1.4.3)
3. Provide inventory management (C.4.1.4.4)
4. Provide configuration management (C.4.1.4.5)
5. Provide telecommunications infrastructure support of an agency's call center operations (C.4.1.4.8)
6. Provide network management support (C.4.1.4.11)
7. Operate and maintain security functions (C.4.1.4.12)
8. Maintain specified portions of the customer's telecommunications infrastructure (C.4.1.4.13)

C.5.2 Solutions Subcategories

To qualify for a solutions award, the offeror must demonstrate the capability to expertly perform all of the mandatory support services described in Section C.5.1 as they apply to one or more of the following subcategories.

- 1. Voice communications** – at a minimum, the offeror shall be capable of providing complete solutions that involve the installation, operation, and maintenance of PBXs, key systems, wireless PBXs, VoIP or other voice over packet systems, microwave systems, or messaging systems.
- 2. Data communications** – at a minimum the offeror shall be capable of providing complete solutions that involve the installation, operation, and maintenance of LANs, wireless LANs, or messaging systems.
- 3. Cable and wire management** – the offeror shall be capable of providing complete solutions that involve the installation of cabling and wiring in accordance with the requirements of Section C.3.5.2 as well as managing the agency's legacy cable and wiring systems.

4. **Voice and video conferencing** – at a minimum the offeror shall be capable of providing complete solutions that involve the installation, operation, and maintenance of video conferencing systems that terminate at a desktop, conference room, or portable terminal as well as voice conferencing systems that operate within a building or a campus environment.
5. **Billing and account management support** – the offeror shall be capable of providing complete solutions in accordance with the requirements of Section C.4.1.4.6. They shall be capable of supporting customers that are making the transition from a centralized to a direct billing arrangement, including the establishment and operation of a billing verification function.
6. **Customer service and technical support** - the offeror shall be capable of providing complete customer service and technical support of voice, data, and/or video services in accordance with the requirements of Section C.4.1.4.10.
7. **Other solutions as proposed.** Offerors and contractors are encouraged to propose additional subcategories that may be the basis of subsequent competitive CONNECTIONS awards.

A CONNECTIONS contractor shall only perform work under the subcategory(ies) in which it is awarded a contract(s). Contractors may propose additional Solutions subcategories at any time that:

1. Are within the scope of the CONNECTIONS acquisition;
2. Respond to the requirements of Federal agencies; and
3. Are within the contractor's area of core competency.

If the contractor wishes to propose additional solutions subcategories, the contractor shall insert sections in Volumes II and IV of his proposal that corresponds to the subcategory "other solutions as proposed" in the list above. In these sections, the offeror shall identify each solutions subcategory he wishes to propose, insert a written proposal for each such solution that is at a level of detail similar to that provided for the pre-defined solutions scenarios, and describe the pricing for each solution. The contractor shall follow the instructions provided in Sections L.16.2.3 and L.16.4.3 of this solicitation.

The contractor may also propose to perform appropriate parts of the work off site. Outsourcing arrangements are permissible if the customer agrees that the proposal meets its requirements.

C.5.3 Solutions Scenarios

National offerors shall meet the requirements of all of the subcategories listed in Section C.5.2. Global and State offerors shall meet the requirements of at least one of these subcategories. Offerors shall describe their technical approach for providing complete solutions in each of the subcategories they choose to address. This description shall include staffing plans, response-time objectives, equipment requirements (including the recommended inventory of spare parts), and fee structures.

Equipment and support services that are proposed to meet the requirements of a Solutions subcategory shall meet the applicable requirements of Sections C.2, C.3, or C.4 as appropriate.

The Government will base its evaluation of the quality of the offeror's technical approach on this description, its narrative responses to applicable technical questions listed in Section J, and the completeness and quality of its responses to the Solutions scenarios described in Section J.10. The scenarios that shall be completed depend on the subcategories proposed, as shown in Table C.5-1. For each scenario, the offeror shall state its assumptions. All of the products and services involved in providing the complete solution to the scenario shall be incorporated into the Section B Product_Data and Price_Data databases of the offeror's Price Volume. The Scenarios are designed to require the offeror to exercise the four required support services (consulting, systems integration, installation and testing, and operations support) and ensure that the core products and services proposed are incorporated into the Price Volume.

Table C.5-1. Solutions Scenarios

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Subcategory	Scenarios
Voice Communications	<ol style="list-style-type: none"> 1. PBX Installation 2. Wireless PBX Installation 3. VoIP Installation 4. Microwave System Installation 5. Messaging System Installation (Voice Mail)
Data Communications	<ol style="list-style-type: none"> 1. LAN Installation 2. Wireless LAN Installation 3. Messaging System Installation (Unified Messaging System)
Cable and Wire Management	<ol style="list-style-type: none"> 1. Installation of Backbone Cable 2. Installation of Station Cable and Wiring
Voice and Video Conferencing	<ol style="list-style-type: none"> 1. Install Video Conferencing to Conference Rooms 2. Install Video Conferencing to a Portable Terminals 3. Install Video Conferencing to Desktops 4. Install Voice Conferencing
Billing and Account Management Support	<ol style="list-style-type: none"> 1. Agency going from centralized to direct billing 2. Billing Verification
Customer Service and Technical Support	<ol style="list-style-type: none"> 1. Voice Service 2. Data Service 3. Video Service

Section D: Packaging and Marking

All information submitted to the Procuring Contracting Officer (PCO), the Administrative Contracting Officer (ACO), the Program Manager (PM), the Contracting Officer's Technical Representatives (COTR), or the Designated Agency Official (DAO) shall clearly indicate the contract number, the delivery order number, and attention to the specific addressee, as applicable. The PCO or ACO, as appropriate, shall receive a copy of all correspondence from the COTR or DAO.

D.2 552.211-75 Preservation, Packaging And Packing (Feb 1996)

Unless otherwise specified, all items shall be preserved, packaged, and packed in accordance with normal commercial practices, as defined in the applicable commodity specification. Packaging and packing shall comply with the requirements of the Uniform Freight Classification and the National Motor Freight Classification (issue in effect at time of shipment); and each shipping container or each item in a shipment shall be of uniform size and content, except for residual quantities. Where special or unusual packing is specified in an order, but not specifically provided for by the contract, such packing details must be the subject of an agreement independently arrived at between the ordering agency and the contractor.

D.3 Initial and Subsequent Packing, Marking and Storage of Equipment

Equipment delivered under this contract shall be sent to the location specified in the order. If "inside delivery" is specified and the contractor cannot gain access to the specified location, the equipment shall be stored temporarily in a mutually acceptable location.

All initial and subsequent packing, marking and storage incidental to shipping of materials under this contract shall be made at the contractor's expense. Supervision of packing and unpacking of initially acquired materials shall be furnished by the contractor. Such packing, marking and storage costs shall not be billed to the Government.

D.4 Packing List

A packing list or other suitable shipping document shall accompany each shipment and shall indicate:

1. Name and address of the consignor

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2. Name and complete address of the consignee
3. Government order or requisition number
4. Government bill of lading number covering the shipment (if any)
5. Description of the material shipped, including item number, quantity, number of containers, package number (if any), and weight of each package

When payment will be made by Government commercial credit card, in addition to the information above, the packing list or shipping document shall include:

1. Cardholder name and telephone number
2. The term "Credit Card"

The credit card number shall not be visible to the public.

D.5 Equipment Removal

All contractor-owned equipment, accessories, and devices located on Government property shall be dismantled and removed from Government premises by the contractor, at the contractor's expense, within 90 calendar days after contract expiration, or as mutually agreed by the Government and the contractor. Exceptions to this requirement shall be mutually agreed upon and written notice issued by the ACO or DAO.

Section E: Inspection and Acceptance

E.1 Clauses Incorporated by Reference

This Contract incorporates the following Federal Acquisition Regulation (FAR) clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. FAR clauses may also be viewed on the website <http://www.arnet.gov/far>.

<u>FAR NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
52.246-2	INSPECTION OF SUPPLIES--FIXED PRICE	AUG 1996
52.246-4	INSPECTION OF SERVICES--FIXED-PRICE	AUG 1996
52.246-16	RESPONSIBILITY FOR SUPPLIES	APR 1984

E.2 Definitions

- "Acceptance," as used in this clause, means the act of an authorized representative of the Government approving and assuming ownership of products and/or services.
- "Defect," as used in this clause, means any condition or characteristic in any products or services furnished by the contractor under the contract that is not in compliance with the requirements of the contract.

E.3 Inspection, Testing and Acceptance of Contractor Provided Products and Services

The contractor is responsible for performing or having performed all inspections and tests as required by Government approved test plans as well as those tests necessary to substantiate that the equipment, supplies, and/or services furnished under each Government order conforms to contract requirements, including any applicable technical requirements for specified manufacturers' parts. This shall be accomplished on each Government order prior to informing the ordering agency that the order has been completed. Government acceptance, testing, and inspection will not begin until after the contractor has notified the Government of job completion. Testing is not required if operating in place equipment is purchased and no modifications have been made. Contractor testing shall include:

1. Conformance to Government approved test plans.
2. Equipment ordered and installed separately from common equipment shall be tested as prescribed by the manufacturer.

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3. Equipment associated with, and installed with, common equipment, shall be included in the performance test of the system. In addition, such equipment shall be tested as prescribed by the manufacturer.
4. Miscellaneous equipment shall be tested as prescribed by the manufacturer.
5. All other equipment, wiring, and devices shall be tested in accordance with accepted commercial standards and with all requirements set forth or referenced elsewhere in this contract or order.

If the contractor becomes aware at any time before acceptance by the Government (whether before or after tender to the Government) that a defect exists in any equipment, supplies, and/or services, the contractor shall:

1. promptly correct the defect, and
2. promptly notify the GSA COTR or the ordering agency in writing of the defect and of its correction.

E.4 Acceptance by the Government

All items of equipment, supply, and/or service furnished by the contractor, shall meet the specifications of the contract and the order and/or shall meet functional and performance standards contained in the contractor's plans or as represented by the OEM. The provisions of this clause also apply to all replacement, substitute equipment, and equipment added and/or modified during the term of this contract.

Equipment items and systems shall be subject to acceptance testing, as required. Acceptance shall be deemed to have occurred only after an item of equipment and/or system(s) have fully met the standards of operation performance for a period of 30 (thirty) consecutive calendar days following its installation and/or cutover. If the equipment and/or system(s) does not meet the standard of performance during the initial 30 consecutive day period, the acceptance testing period shall continue on a day-by-day basis until the standard of performance is met for a total of 30 consecutive days. If the equipment and/or system(s) fail to meet the standards of performance after 90 calendar days from installation/cutover, the Government may, at its option:

1. request a replacement,
2. grant an extension of the period allowed for successful completion of the acceptance test, or
3. terminate the order and request the immediate removal of the equipment and/or system(s) from Government-owned or leased premises.

The absence of an official written notice from the ordering agency or the Contracting Officer within 30 days after the 30 -day period following installation or cutover stating that acceptance testing has failed shall mean that acceptance has occurred.

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E.5 Acceptance Criteria

Unless otherwise provided in the order, the standards cited in the contract shall apply.

Acceptance criteria for services include the following:

1. **Quality.** Services performed must meet quality requirements specified in the statement of work.
2. **Quantity.** The quantity of the work shall meet the minimum requirements established in the statement of work.
3. **Timeliness.** The contractor must complete work on schedule and must meet the deadline for any critical requirements identified in the statement of work.
4. **Procedures.** The contractor shall comply with the procedures specified in the *Acceptance Test Plan*.
5. **Certification of Acceptability.** The DAO shall review and certify the acceptability of all equipment and services prior to processing the applicable invoices for payment.
6. **Acceptance.** If the Government does not formally respond within fifteen working days, the contractor may assume that the deliverable in question has been accepted.

E.6 Contractor Responsibilities for Correcting Defects and/or Failures Detected By Government Testing, Utilization, and Inspection of Contractor Provided Equipment, Supplies, and/or Services

All equipment, supplies and/or services furnished under this contract shall conform to contract requirements including any applicable technical requirements for specified manufacturer's parts, equipment, and systems. The contractor shall not be responsible under this clause for the correction of any defects in Government property which is not covered by a maintenance order or warranty, unless the contractor performs, or is obligated to perform, any modifications or other work on such property. In such event, the contractor shall be responsible only for correction of defects that result from that work performed by the contractor.

E.7 Correcting Defects and Failures Prior to Government Acceptance

Any defect detected by the Government in contractor-provided equipment, supplies, and/or services prior to acceptance of such equipment, supplies, and/or services by the Government shall be reported to the contractor within three working days. The contractor shall take whatever action is necessary to assure that the defect is corrected in the time frames of the original order, unless granted an extension. Any supplies or parts corrected, or furnished in replacement, and any services re-performed shall be subject to the conditions of the contract to the same extent as supplies and/or services initially delivered. The contractor shall be liable for the reasonable costs of disassembly and/or re-assembly of larger items when it is necessary to remove the equipment to be inspected and/or returned for correction or replacement.

E.8 Correcting Defects and Failures During the Warranty Period

The warranty period shall be one year (365 days) (or the warranty provided by the OEM, whichever is longer) for all new equipment. The warranty period shall commence upon delivery of equipment purchased but not ordered to be installed; however, if equipment is to be installed, the warranty period does not commence until it is installed and accepted by the Government. If the Government orders equipment without installation, the warranty applies to contractor provided equipment only. If the Government requests installation by the contractor and existing cable is to be used, the contractor is responsible for making the system work, only when fault identification eliminates any Government Furnished Equipment (GFE).

The contractor shall warrant the installation of the equipment, including cross connects, for one year from installation. The contractor is not required to warrant any existing cable utilized in any installation of contractor provided or Government provided equipment, nor is the contractor required to warrant any Government provided equipment. The warranty period will provide for the replacement of the item of equipment, supplies, and service, or correction of all failures and defects of contractor provided equipment, supplies and/or services, free of charge and without necessity for such equipment, supplies and/or services being simultaneously protected by coverage under an annual maintenance agreement.

The contractor shall be liable for the reasonable costs (those costs that a prudent person would incur to perform the same task) of disassembly and/or re-assembly of larger items when it is necessary to remove the equipment to be inspected and/or returned for correction or replacement.

E.9 Correcting Failures Following the Warranty Period

Any equipment, supply or service failure detected after any warranty period has expired shall be corrected under a maintenance agreement provided that continuous maintenance service is ordered within 30 days of warranty expiration.

Section F: Deliveries or Performance

F.1 Clauses Incorporated by Reference

This contract incorporates one or more Federal Acquisition Regulation (FAR) clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. FAR clauses may also be viewed on the website <http://www.arnet.gov/far>. The following FAR Clauses are incorporated:

<u>FAR NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
52.242-15	STOP-WORK ORDER	AUG 1989
52.242-17	GOVERNMENT DELAY OF WORK	APR 1984
52.247-34	FOB DESTINATION	NOV 1991

F.2 Time of Delivery and Performance of Services

The contractor is allowed a specific amount of time to deliver equipment and/or provide services (move, install, deinstall, reinstall, and/or rearrange/drop and mount) purchased by ordering agencies through this contract. These intervals will be negotiated at the order level.

F.3 Issuing Offices for Delivery Orders and Task Orders

Delivery orders will be issued directly by Designated Agency Officials (DAOs) appointed by individual customer agencies. DAOs will receive their authority from the parent agency contracting office or other designated entity and will be subject to the rules, regulations and conditions promulgated and enforced by that agency.

F.4 Place of Performance

The place of performance of this contract shall be global, and the contiguous United States of America, including, Alaska, American Samoa, Hawaii, Guam, Puerto Rico, Saipan, the Virgin Islands, and the remaining Northern Mariana Islands.

F.5 Start-Up Work

The contractor shall provide management and administrative support in the areas designated in F.4 in order to be able to receive new task requests at the time of the Notice to Proceed on this contract. The Notice to Proceed will be not less than 15 working days after award.

F.6 Contract Deliverables

The contractors shall deliver the following products identified in Table F.6-1, Summary of Contract Deliverables, which are described in the referenced sections of the RFP:

Table F.6-1. Contract Deliverables

RFP Section	Description	Quantity	Medium of Delivery	Submittal Date	Format
B.1.4	<i>Instructions for Pricing</i>	One	As described in B and as approved by PCO	In proposal and as necessary	Contractor-specified electronic format
G.9	<i>Marketing Plan</i>	One	As described in G and as approved by PCO	In proposal and updated annually	Contractor-specified electronic format
C.2.2.1	Task order format	As required	Content requirements described in C and G and as approved by PCO	Contractor shall document task order format in proposal; at least 60 days' notice to change format after award	Contractor-proposed electronic format
C.2.2.1	Price quote	Per task order	As described in C and as approved by PCO	Five business days after receiving task order	Contractor-proposed electronic format
C.2.2.1	Task order acknowledgment	Per task order	As described in C and as approved by PCO	One hour after receiving task order	Contractor-proposed electronic format
C.2.2.1	Task order tracking	As required	As described in C and as approved by PCO	Ongoing	Contractor-proposed electronic format
C.2.2.1	Task order completion acknowledgment	Per task order	As described in C and as approved by PCO	Within one business day	Contractor-proposed electronic format
C.2.2.1	Archived task orders and DOs	All task orders and DOs	As described in C and as approved by ACO	Within 10 business days until the contract expiration date	Contractor proposed electronic format
C.2.2.2 G.7.1	Bills	Two hard copies & one electronic copy	As described in G and as approved by PCO	Monthly by the 15 th day of the month following acceptance of a product or service	Contractor-proposed electronic format and hard-copy format
C.2.2.2	Billing data retrieval	As required	As described in G and as approved by ACO	10 business days after request	Contractor-proposed electronic format
C.2.2.3	Training	As required	As described in C and as approved by DAO	Within five business days after acceptance	Contractor-proposed electronic format

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RFP Section	Description	Quantity	Medium of Delivery	Submittal Date	Format
C.2.2.5	<i>Trouble Report</i>	Per user complaint entered as a trouble	As described in C and as approved by PCO	Within two business days after the trouble is cleared	Contractor-proposed electronic format
C.2.2.5	<i>Escalation Procedure</i>	As required	As described in C and as approved by ACO	Within one business day after a change	Contractor-proposed electronic format
C.3.1.5 C.4.1.4.4	<i>Inventory File</i>	As required	As described in C and as approved by DAO	As specified in task order; updated twice a month	Contractor-proposed electronic format
C.3.1.9	<i>Acceptance Test Plan</i>	As required	As described in E and as approved by DAO	Draft <i>Acceptance Test Plan</i> due 30 days after task order award; final <i>Acceptance Test Plan</i> due no later than 30 days prior to the start of acceptance testing.	Contractor proposed electronic format
C.3.1.11	<i>Equipment Warranty</i>	Per product or service delivered under the contract	As described in C and as approved by DAO	At the time of acceptance of the equipment or service	Contractor-proposed electronic format
C.3.1.12	<i>Recommended Spare Parts List</i>	As required	As described in C and as approved by DAO	As specified in task order	Contractor-proposed electronic format
C.3.1.12	<i>Equipment Integrated Logistics Plan</i>	As required	As described in C and as approved by DAO	As specified in task order	Contractor-proposed electronic format
C.3.3.8.1.4	<i>User Manual</i>	As required	As described in C and as approved by DAO	As specified in task order	Contractor-proposed electronic format
C.3.5.1	<i>Site Survey Report</i>	As required	As described in C and as approved by DAO	Within 45 days after receipt of the task order	Contractor-proposed electronic format
C.4.1.1.2	<i>Technical Report</i>	As required	As described in C and as approved by DAO	As specified in task order	Contractor-proposed electronic format
C.4.1.4.5	<i>Configuration Management File</i>	As required	As described in C and as approved by DAO	As specified in task order; updated twice a month or one business day after changes occur	Contractor-proposed electronic format
C.4.1.4.11	<i>Source and Destination Connectivity Matrix</i>	As required	As described in C and as approved by DAO	Updated automatically when a new node is installed	Contractor-proposed electronic format
C.4.1.4.13	<i>Maintenance Plan</i>	As required	As described in C and as approved by DAO	Updated at intervals specified in task order	Contractor-proposed electronic format

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RFP Section	Description	Quantity	Medium of Delivery	Submittal Date	Format
G.6.1.1 J.7.1	<i>Delivery Order Status Report</i>	One	As described in G and as approved by PCO and DAO	The contractor shall provide draft report with proposal and monthly reports thereafter	Contractor-proposed electronic format
G.6.1.2 J.7.2	<i>Financial Status Report</i>	One	As described in G and as approved by PCO and DAO	The contractor shall provide draft report with proposal and monthly reports thereafter	Contractor-proposed electronic format
G.6.1.3 J.7.3	<i>Contractor Status and Marketing Report</i>	One	As described in G and as approved by PCO and DAO	The contractor shall provide draft report with proposal and monthly reports thereafter	Contractor-proposed electronic format
G.7.1.3	Test files for centralized billing using TOPS (if applicable)	One	As described in G and as approved by ACO	The contractor shall provide test files within 45 days after the Notice to Proceed with centralized billing	Government-specified electronic format
H.5 Minimum Subcontracting Goals	Progress in contractor's subcontracting outreach program	One	As described in H and approved by ACO.	The contractor shall provide draft report with proposal and semiannual reports thereafter	Contractor-proposed electronic format
H.5 Minimum Subcontracting Goals	List of subcontracts awarded and any letters of commitment	One	As described in H and approved by ACO.	The contractor shall provide draft report with proposal and semiannual reports thereafter	Contractor-proposed electronic format
H.5 Minimum Subcontracting Goals	Updated checklist tracking adherence to Subcontracting Plan	One	As described in H and approved by ACO.	The contractor shall provide draft report with proposal and semiannual reports thereafter	Contractor-proposed electronic format
H.5 Minimum Subcontracting Goals	SF 294 or SF295	One	As described in H and approved by ACO.	The contractor shall provide draft report with proposal and semiannual reports thereafter	Government specified electronic format
H.24	<i>Site Preparation Plan (Historic Building)</i>	As necessary	As described in H and as approved by DAO	As specified in order	Contractor-specified electronic format

F.7 Transportation of Materials

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The contractor shall be responsible for transporting all materials between the Government site and the contractor's place of performance. Pickup and delivery of materials shall be in accordance with the schedule defined for each specific requirement.

The contractor shall ship all deliverables F.O.B. destination with all shipping and transportation costs prepaid. Destinations will be specified in the task order.

F.8 Remedial Maintenance Response Times

1. **Emergency** - The contractor shall arrive at the agency location within three continuous hours of notification of a request for emergency remedial maintenance service. The trouble shall be resolved within six continuous hours after arrival.
2. **Priority** - The contractor shall arrive at the agency location within six working hours of notification of a request for priority remedial maintenance service. The trouble shall be resolved within 12 continuous hours after arrival.
3. **Routine** - The contractor shall arrive at the agency location within eight working hours of notification of a request for routine remedial maintenance service. The trouble shall be resolved within 24 continuous hours after arrival.

The priority of a maintenance action will be established by the mutual consent of the customer and the contractor.

F.9 Changes to Delivery and/or Service Intervals

The above listed intervals are mandatory unless otherwise agreed to, in writing, by the contractor and the DAO, on a case by case basis.

F.10 System Proposals

All system proposals shall be provided in accordance with the requirements of Section C.

Section G: Contract Administration Data

G.1 Supervision

The contractor shall provide supervision for all contractor-supplied personnel on orders. The Government will have no direct supervision over contractor personnel. Government actions with respect to contractor personnel will conform to the policies stated in Part 37 of the FAR.

G.1.1 Roles and Responsibilities

G.1.1.1 General Services Administration

GSA's primary role is contract administration. GSA will administer this solicitation and will modify CONNECTIONS contracts as necessary. GSA also will operate and maintain a CONNECTIONS portal that will:

1. Provide customers with access to a database to help them define requirements and identify promising alternatives.
2. Link to contractor Internet web sites providing contact, equipment and service information, and pricing information.
3. Update customer requirements to all contractors in the customer's area with offerings in the areas of interest or to customer-designated contractors in accordance with the fair consideration requirements of FAR 16.505(b) (see Section G).
4. Maintain electronic Bulletin Boards with up-to-date subjects of interest to the CONNECTIONS community.

The Government plans to implement an E-Market exchange environment that will leverage the electronic components of the offeror's processes. This environment may include a range of capabilities, such as, but not limited to, customer requirements submission, support for the fair consideration process, ordering, billing, and payments.

G.1.1.2 Contractor

The contractor shall be responsible for the marketing and sales of its CONNECTIONS offerings. The contractor's commercial practices can be used. The contractor's success will be governed primarily by market forces. CONNECTIONS contractors need to work with their customers to provide responsive solutions and to work with GSA to develop and maintain procedures for administering the contracts that are fast, efficient, and easy to use.

G.2 Authority

G.2.1 Procuring Contracting Officer (PCO)/Administrative Contracting Officer (ACO)

The GSA PCO has overall responsibility for administration of the contracts. The right to issue contract revisions, change the terms and conditions of the basic contract, terminate the contract,

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exercise option renewals, and approve subcontractors is reserved solely for the PCO unless otherwise delegated in writing to an Administrative Contracting Officer (ACO).

G.2.2 GSA Program Manager (PM)

The GSA Program Manager (PM) will provide centralized technical oversight and management regarding CONNECTIONS contracts to the contractor, GSA, and designated customers. The PM is the representative for the GSA Regional Services Management Office.

G.2.3 Designated Agency Official (DAO)

The scope of the DAO's delegated authority contemplated under the CONNECTIONS contracts will be limited to order competition, order issuance, order modification /administration and reporting.

As is set forth in Section C.1.1, the term "customer" includes all Federal agencies, authorized Federal contractors, and agency-sponsored universities and laboratories authorized by law or regulation to acquire equipment and services using a Federal contract. GSA reserves the right to add customers at any time during the term of the contract in accordance with GSA Order ADM 4800.2E (as updated).

Appointment of the DAO will be from the customer agency contracting office or other designated entity and will be subject to the rules, regulations, and conditions promulgated and enforced by that customer agency.

For GSA, the PCO hereby delegates DAO authority to all warranted FTS contracting officers.

For individual orders, the DAO must ensure the following requirement is performed as stated in FAR 39.203(b)(3):

Requiring and ordering activities must ensure supplies or services meet the applicable accessibility standards at 36 CFR 1194, unless an exception applies, at the time of issuance of task or delivery orders. Accordingly, indefinite-quantity contracts may include noncompliant items; however, any task or delivery order issued for noncompliant items must meet an applicable exception.

The DAO shall also be responsible for providing the following information for any individual order if applicable:

1. Locations identified under the Historical Preservation Program.
2. Locations known to contain asbestos or other toxic or hazardous materials.
3. Locations where existing cable may be utilized and the age and ownership of that cable.

G.2.4 Contracting Officer's Technical Representative (COTR)

G.2.4.1 Appointment of COTR

The DAO may appoint a Contracting Officer's Technical Representative (COTR) to assure orderly performance of orders. The COTR is authorized to be the technical point of contact

under each order. However, the contractor shall direct all written inquiries of a technical or non-technical nature through the DAO.

G.2.4.2 COTR Responsibilities

The COTR will provide no supervisory or instructional assistance to contractor personnel. This person's responsibility is to provide the contractor access to working data and to clarify technical areas as necessary to assure useful expenditure of contractor effort. The COTR is not empowered to make any commitments or changes that affect the contract price, terms, or delivery provisions. Any such proposed changes, at the order level, must be brought to the immediate attention of the DAO and, at the basic contract level, the PCO/ACO, for action. The acceptance of any change by the contractor at the order level without specific approval and written consent of the DAO and, at the contract level, without specific approval and written consent of the PCO/ACO, will be at the contractor's risk.

In addition, at the direction of the DAO, at the order level, or the PCO/ACO, at the contract level, the COTR will provide guidance, instruction and assistance to customer agencies in the preparation of orders and for release to the CONNECTIONS contractors. In addition, the COTR may be called upon to assist the PM or PCO/ACO in mitigating conflicts between the CONNECTIONS contractor and the customer agencies.

G.2.4.3 Notification of Changes

If in the contractor's opinion, the COTR requests or indicates an expectation of effort which would justify or require an equitable adjustment to the contract, the contractor shall promptly notify the ACO in writing, pursuant to the Notification of Changes clause, FAR 52.243-7, but take no other action on that request or effort until the ACO has issued a change or otherwise resolved the issue.

G.2.5 Reserved

G.2.6 Contractor's Points of Contact

The contractor shall propose an organizational structure for management and administration of the contract. A list of all points of contact with the Government shall be provided in the proposal. The contractor shall provide the ACO with an updated list of all points of contact within one business day after any change to this list.

G.2.7 Agent for the Government

The contractor may be provided a Letter of Agency by the DAO authorizing the contractor to act as the Government's agent in executing certain aspects of an order. The contractor may be tasked to act as the Government's agent with local and interexchange carriers, equipment suppliers, construction contractors, building owners, and other concerned parties involved in designing, provisioning, installing, deinstalling, operating, or maintaining elements of the customer's telecommunications infrastructure.

While acting as the Government's agent, the contractor shall be subject to the statutes and regulations applicable to the Government. The contractor may be authorized, for example, to coordinate activities at agency locations such as the following:

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1. Undertake preparations necessary to complete the task.
2. Coordinate certain preparations that are necessary to accomplish the task with other concerned parties.
3. Prepare orders for incidental services and equipment for execution by the DAO.
4. Resolve service and technical support problems with other contractors.

G.3 Contract Administration

Either the ACO or the DAO will be responsible for the administration of the orders issued under this contract. Following award, GSA intends to issue a delegation of authority empowering the DAO to order from the CONNECTIONS contract. GSA will assist the customer agencies in the preparation and administration of orders when requested. However, the contract assumes that in most cases ordering will be accomplished through direct interface between the CONNECTIONS contractor and the customer agencies.

The office to be contacted during the term of this contract for overall contract and program management is:

George Davis
General Services Administration
10300 Eaton Place **(Room 513)**
Fairfax, VA 22030-2337

G.4 Delivery Orders and Task Orders

Reference C.2.2.1 for Ordering Requirements.

A delivery order is an order for supplies placed against an established contract or with Government sources, and a task order is an order for services placed against an established contract or with Government sources. Throughout this contract, the term “order” may mean “delivery order” or “task order,” as defined in FAR 2.101. All orders are subject to the terms and conditions of this contract. In the event of conflict between an order and this contract, the contract shall prevail.

DAOs may issue orders under this contract to accomplish tasks for their agency. The DAO will prepare complete procurement packages to reflect delivery requirements and will be responsible for the overall administration of the orders. All task orders will include a Statement of Work.

DAOs will issue orders using an appropriate agency form that authorizes the contractor to proceed based upon the agreed technical requirements, milestone and deliverable schedules, and total price. For fixed price tasks, a milestone schedule, including start and end dates for each milestone or deliverable, shall be submitted with the task order.

When a task proposal is necessary, the task order request will be issued by the DAO and shall include the pricing method (normally fixed price), place of performance, due date for the task

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proposal, statement of work, and evaluation factors. Task orders issued under this contract will not be synopsisized in the FedBizOpps.

Tasks may be grouped for reasons of efficiency. Contractors awarded National Contracts are eligible to compete for task orders at both the National and State level. Contractors awarded State contracts are eligible to compete for task orders at the State level only.

If a task order includes multiple states, the eligible Contractors are those with National Contracts and those with State Contracts in each state listed in the task order. Contractors awarded Global contracts are eligible to compete for task orders at the Global level only. See Section B.1.2.2 for a description of the geographic areas. All eligible awardees will be provided a fair opportunity to be considered for each order in excess of \$2,500, except as noted below. The DAO need not contact each awardee under the contract before selecting a task order awardee if they have information that ensures that each awardee is provided a fair opportunity to compete in accordance with FAR 52.216-18, "Ordering." Award will be made to the contractor based on the evaluation criteria established in the task request.

On an exception basis, as authorized in FAR 16.505(b)(2), multiple awardees need not be given an opportunity to be considered for a particular order in excess of \$2,500 when the DAO determines that:

- The need for services is of such urgency that use of the normal fair opportunity procedure would result in unacceptable delays,
- Only one such contractor is capable of providing the services at the level of quality required because the services ordered are unique or highly specialized,
- The order should be issued on a sole-source basis in the interest of economy and efficiency as a logical follow-on to a task already issued under the contract, provided that all awardees were given a fair opportunity to be considered for the original order, or
- It is necessary to place an order to satisfy a minimum revenue guarantee.

If applicable, the DAO will document in the order file the rationale for the determination that one of the exceptions to fair opportunity is appropriate. For all orders, the DAO must document in the order file the rationale for placement and price of each order.

G.4.1 Tasking Options

Each written task order will contain, at a minimum, the following elements:

1. Date of Order
2. Contract Name and Number (e.g. CONNECTIONS – 9TE-PM-02-0001)
3. Ordering Agency/Division/ Branch
4. Job/Task Description

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5. Item Numbers, quantities, unit prices, deliverables, Other Direct Costs (ODCs)
6. Period of Performance
7. Place of Performance
8. DAO and other responsible officials with phone numbers

G.4.1.1 Oral Requests

Task orders may be issued orally (including by telephone) by the DAO with written follow-up confirmation within five business days. Upon receipt of confirmation by the contractor in accordance with Section C, the clock will start. When transmission of confirmation to the contractor occurs via electronic means (E-mail, facsimile, etc.), it will be assumed that the contractor has received the order on the same day. Otherwise, a five day lead time shall be assumed if the order is transmitted via the U.S. Mail.

G.4.1.2 Reserved

G.4.1.3 Reserved

G.4.1.4 Government Use of Credit Cards

The contractor shall permit all authorized users (see Section G.2.3) to purchase CONNECTIONS products and services using Government credit cards under the GSA SmartPay Program. Five banks are already issuing these approved cards: Bank of America, Bank One, Citibank, Mellon Bank, or U.S. Bank. The Government reserves the right to allow other banks to issue GSA SmartPay cards and to rescind the privileges of the banks listed over the life of the contract.

The contractor shall establish a merchant account with each of the SmartPay contractors or update their existing account if already established for commercial customers. It is the responsibility of the contractor to coordinate with their banks to ensure that they use the appropriate North American Industrial Classification System (NAICS) codes 513330 and 541512 for the products and services provided under the contract and establish their credit card financial procedures with their respective lending institutions. Failure to maintain current account information that impacts the customer's ability to purchase may impact ordering and billing performance, which will be reflected in future contractor performance ratings.

When payment is to be made using the SmartPay card, the credit card number shall not be visible to the public.

For more information about GSA's SmartPay program, visit the web site at <http://fss.gsa.gov/webtraining/trainingdocs/smrtpaytraining.cfm>.

G.4.2 Task Order Requests

Task Order Requests (TOR) will be issued by the DAO and will define the place of performance. Also included will be the Statement of Work (SOW) that describes the technical requirements for deliverable products (including ODCs), performance standards, and acceptance criteria. This

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request also will include customer benchmarks (as applicable), and performance requirements in detail, sufficient to permit accurate estimation of cost, work hours, computer time, other resources, a schedule, completion date, and the total price. The contractor may be required to commit to a Service Level Agreement.

G.5 Responses to Task Orders

G.5.1 Preproposal Meeting

The contractor may request a preproposal meeting. However the request for the meeting shall be made to the DAO no later than three business days after receipt of the Task Order Request. If a preproposal meeting is held, the proposal shall be received by the DAO no later than five business days after the preproposal meeting. All costs associated with the development, presentation and negotiation of the contractor's proposal shall be at the contractor's expense. Submittal by the contractor of the final task order proposal reflecting the results of negotiations shall be at the conclusion of a negotiation meeting by pen and ink changes to the initial proposal unless otherwise requested and authorized by the DAO, in which case it shall not exceed three business days. The contractor, in addition to responding to the approach the Government defines, shall separately submit an additional proposal, if another approach is more economical and/or efficient.

G.5.2 Initial Proposal

The contractor's initial proposal shall be received by the DAO no later than five business days after the issue date of the Task Order Request or as specified in the order unless a preproposal meeting is held. If more time is required, the contractor shall negotiate a date to provide the quote with the customer. In all cases, the contractor shall bear the responsibility of verifying receipt of mailed proposals and/or receipt of electronic transmissions by contacting (via telephone, E-mail, facsimile, etc.) the designated recipient.

1. All quotations for task orders shall be fixed price, provided the order is defined sufficiently to permit the contractor to clearly define the essential requirements and the deliverables. Otherwise, quotations for support services may be priced on a time and materials basis. All quotations for equipment and supplies shall be unit priced. The proposal shall comply with the task request requirements.

For the purpose of this contract, all costs associated with the development, presentation and negotiation of the contractor's order proposal, whether issued or not, shall not be directly charged to the task.

G.5.3 Negotiations and Final Proposal

When required, negotiations shall take place at a time and place designated by the DAO. Following negotiations, the contractor shall submit a final proposal within three (3) business days, or as specified by the DAO, which reflects the results of the negotiations. Following negotiations, if the original task proposal is acceptable, or if negotiations are not required, no additional submission is required. Otherwise, the contractor shall submit the final proposal in the same manner as previously discussed for the original task proposal.

In the event no proposals are received, the DAO may designate a contractor who shall perform the task. The DAO and the contractor shall negotiate the terms and conditions of performance.

G.5.4 Award Decision

The DAO's award decision shall be final and shall not be subject to the protest or disputes provisions of the contract, except for a protest that the order increases the scope, period, or maximum value of the contract. Disputes related to other matters affecting the order award may be directed to the Ombudsman designated for this contract. The Ombudsman will be responsible for those duties described at FAR 16.505(b)(5). The Ombudsman for the CONNECTIONS contracts is:

Donald J. Suda
U. S. General Services Administration
Office of Acquisition Policy
1800 F Street, N.W.
Washington, DC 20405

G.5.5 Order Initiation

All tasks must be fully staffed within 30 calendar days after task award (date on the Award Document) unless otherwise negotiated and specifically stated in the order.

If requested, the contractor shall submit resumes for key personnel to the DAO in the format provided in Section J.8. The DAO will approve or reject each resume within five workdays. For approved resumes, the contractor shall notify the DAO when the individual will report to work on the order. If review of the resume shows the individual is not qualified for the position indicated, the resume will be rejected and a verbal explanation provided. If the contractor desires further consideration of the candidate, the resume must be resubmitted within two workdays of the notice of rejection with the necessary clarification or additional information. Rejection of a resume does not obviate the contractor's responsibility to fully staff by the negotiated start date.

Finally, the contractor shall confirm to the DAO the proposed order initiation date in writing at least five Government workdays prior to the start of the order.

G.5.6 Changes

Orders may be changed either at the Government's initiative or in response to the contractor's proposal. Contract changes are issued by means of a Standard Form 30 (Amendment of Solicitation/Modification of Contract) or an appropriate customer agency form. No direction changing the requirements of an order will be binding upon the contractor unless issued by the appropriate DAO in writing. Likewise, the Government will not be liable for an equitable adjustment to the price of an order on account of a change, unless the change is authorized by the DAO.

Proposed changes to prices or product and service descriptions and related information shall be reflected in a revised Price_Data or Product_Data database and Changes Table in accordance with the instructions in Section B.3.8 (Changes Table). The contractor is responsible for ensuring that price or product changes that are approved by the ACO are stated correctly on the CONNECTIONS web site.

G.5.7 Outstanding Orders

Orders issued within the term of the contract shall be delivered upon completion in accordance with all terms, conditions, and prices that apply to this contract.

G.6 Reporting Requirements

G.6.1 Required Reports

The contractor shall submit the following administrative reports to the issuing office DAOs and the ACO each month: the *Delivery Order Status Report*, *Financial Status Report*, and the *Contractor Status and Marketing Report*. The DAO may request changes to these reports and other reports via task orders.

These administrative reports shall be prepared using Microsoft Excel 97 or Word 97 software or as specified by the Contracting Officer. A draft of each required administrative report shall be submitted with the proposal for review and approval by the PCO. The first approved report shall be due within 60 days after the Notice to Proceed. The Government will return its comments within 15 business days after receipt of the draft. If the Government has not returned its comments within 30 calendar days after receipt of a draft, the contractor may assume that the recommended report format is acceptable unless an extension has been agreed upon.

G.6.1.1 *Delivery Order Status Report*

A suggested format for the *Delivery Order Status Report* for the DAOs and ACO appears in Section J.7.1. This report has three parts:

1. Part I - Information regarding the contractor and the contract
2. Part II – Summaries
 - a. Description of the requirements
 - b. Summary of accomplishments
 - c. Deliverables
 - d. Current and anticipated problems
 - e. Activities for next reporting period
 - f. Status of trouble reports
3. Part III – Staffing
 - a. Contractor
 - b. Subcontractors

A rolled-up version of this same report shall be prepared for the ACO.

G.6.1.2 *Financial Status Report*

A suggested format for the *Financial Status Report* for the DAOs and ACO appears in Section J.7.2. The report format for DAOs has four parts; there is a fifth part, the *Associated Government Fees Summary Report*, for the ACO only.

1. Part I – Contractor Status
2. Part II –Task Order Status
3. Part III – CLINs and ODCs Ordered
4. Part IV - Dollar Activity Report
5. Part V – *Associated Government Fees Summary Report*

G.6.1.3 *Contractor Status and Marketing Report*

A suggested format for the *Contractor Status and Marketing Report* for the DAOs and ACO appears in Section J.7.3. Each report has two parts:

1. Part I – Contractor Status
2. Part II – Marketing Report

G.6.2 Task Level Meetings

Each month a meeting shall take place at the customer site or another site mutually agreed to that shall include the DAO and other customer representatives invited by the DAO and a contractor management representative. This meeting shall address progress on the task(s), problems that have arisen over the past month, and other matters that are pertinent.

G.7 Billing

Reference C.2.2.2 for Billing Requirements.

G.7.1 General Billing Information

A proper bill for each order shall be submitted not later than the fifteenth day of the month following acceptance by the DAO of a product or service delivered under the contract. The Government requires evidence that each charge has been properly authorized and priced correctly, or it may dispute the charge.

G.7.1.1 Billing Format

A separate bill for each order shall be submitted and shall contain, at a minimum, the following information:

1. Contractor name and address
2. Order number(s)
3. Accounting Control Transaction (ACT) number (assigned by the DAO on the order)

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4. Period of performance (month services performed for work request orders, month deliverable completed for fixed price orders)
5. Bill number
6. Customer's name and address
7. For Fixed Price Orders, products delivered and accepted, listed by deliverable number; for Time and Materials orders, labor charges accepted during the period of performance
8. Total labor charges that were authorized in the order to be priced as ODCs at specified rates
9. Travel and per diem charges
10. Total other direct charges (ODCs)
11. Total billed amount
12. Prompt payment discount offered (if applicable)

For other direct costs, such as equipment, travel, per diem, etc., bills shall reflect the contractor's actual expense for the item plus General and Administrative costs (G&A - the only allowable mark-up), to include the Associated Government Fee(s). These charges shall not exceed limits specified in the order. No charges will be paid by the Government that are not specifically detailed in the individual order.

Payment to the contractor will not be made for temporary work stoppages due to circumstances beyond the control of the customer agency such as acts of God, inclement weather, power outages, and results thereof, or temporary closings of facilities at which contractor personnel are performing. Such occurrences may, however, be justification for excusable delays.

The management services of the contractor, including the services of the Program Manager, shall be indirect charges unless the customer requires specified management support (e.g., a site manager) in the task order, in which case the salary of said manager may be billed as a direct charge. Otherwise, the compensation of CONNECTIONS managers for performing management services shall be indirect charges. The Program Manager's compensation shall be included in the contractor overhead portion of the fully burdened hourly rate for each item.

The rate of compensation to the contractor for overtime hours will be as established in Section B. Overtime payments are unallowable except when authorized by the order to meet order requirements on a bonafide exigency basis. The Government will not authorize overtime to compensate for shortcomings in contractor performance.

The Government reserves the right to request that some of the work required by contractor personnel be performed during other than the Normal Business Day (normally 7 AM to 7 PM, Monday through Friday). When the Government requests performance other than day-shift hours, the contractor personnel may be compensated for shift differential. Shift differential shall

be determined by the DAO on a case by case basis using documented local statute and/or local labor union agreements and will only be allowed when included in the order.

G.7.1.2 Travel and Per Diem

The contractor will be reimbursed by the Government for travel and per diem expenses incurred by contractor personnel for travel specifically authorized in an order and approved by the Government. Conditions and limitations applying to travel associated with work under this contract follow:

1. Travel costs approved under an order shall be included as unique costs but shall not be paid unless actual travel occurs and the Government approves the costs.
2. If an order requires assignment of contractor personnel away from the employee's regular duty station for less than six (6) months, such assignments are considered temporary assignments. Travel and per diem expenses associated with Government-approved temporary assignments are allowable. On orders of this nature, reimbursable travel and per diem expenses shall not exceed authorized amounts incorporated into the order.
3. If a task or series of tasks requires continuous assignment of contractor personnel at a location away from the employees' regular duty station for a continuous period of six (6) months or longer, such assignments are considered permanent assignments. The contractor may, at their discretion, accept assignments of less than six (6) months under permanent assignment terms. No relocation, travel, per diem expenses, or travel time will be allowed by the Government for placing contractor personnel at permanent assignments.
4. Post differential, travel, and per diem expenses for contractor employees assigned to duty outside the United States shall be at the rates prescribed for Government employees. The contractor is responsible for obtaining passports, visas, and other necessary documents and clearances at their own expense.
5. Normally the Government will not reimburse any costs associated with the relocation of contractor personnel. For special circumstances, reimbursement may be authorized by the order. Payment to the contractor is contingent on the contractor providing the services as agreed (for instance, for a twelve-month period or through task completion).
6. Except as otherwise provided herein, payment will be made for actual common carrier fares plus cost of travel between the contractor employee's home or regular duty station and the carrier terminal and temporary duty points for travel by the most reasonable and economical means. If a contractor employee resides within 50 miles of a temporary duty station, he/she shall not be entitled to travel or per diem expenses for duty at that location.
7. Reimbursement for travel and per diem shall not exceed the rates and expenses allowed by Government travel regulations for a Government employee traveling under identical circumstances, and shall not exceed maximum limits authorized in the order.

8. Payment may be made for the use of a privately owned vehicle (POV) for official business in connection with approved temporary assignments, including travel between the regular duty station and temporary duty station, unless the temporary duty station is within 50 miles of their residence or regular duty station. Rates for, and use of, POV shall be per the direction of the Federal Travel Regulations (FTR).
9. Labor hour payments will be made for actual authorized travel time in support of approved orders using the same criteria as for Government personnel traveling under the same circumstances. In general, the regulations provide that exempt employees traveling outside of normal work hours are not reimbursed for labor hours used in the performance of travel, and non-exempt employees are fully reimbursed for their labor hours used for travel. The contractor is responsible for ensuring that travel time outside of normal work hours is kept to a minimum. Upon request, the contractor shall furnish schedules and mode of transportation to the Government.
10. Travel and per diem payments are intended as reimbursement to contractor employees. Such payments are not intended as profit for the contractor nor are they intended to be subject to deduction or set-aside by the contractor.

G.7.1.3 Additional Centralized Billing Requirements

The contractor shall deliver centralized bills and billing support data to GSA via a mutually acceptable electronic medium. Centralized billing data shall be submitted monthly by the agreed calendar day

The four types of electronic media list below are acceptable to GSA, although other alternatives may be acceptable also:

1. File Transfer Protocol (FTP) file transmission (the preferred method)
2. Three and a half inch (3.5") diskettes
3. CD-ROMs
4. E-mail attachments

One alternative would be to interface with GSA's Telecommunications Ordering and Pricing System (TOPS). A suggested arrangement for interfacing with TOPS is described in this section.

Centralized billing files that interface with TOPS shall have the following attributes:

1. The contractor shall identify the date and time that the bill was processed and the unique process group. The group of accounts within each process group shall be acceptable to GSA and remain uniform from month to month.
2. ASCII (no EBCIDIC)
3. Fixed length records
4. Fixed length fields within records
5. Delimited (comma, pipe symbol "|")

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Centralized billing data shall be submitted to TOPS in one of two ways:

1. Three separate files named Order Activity, Recurring Charges, and Billing Adjustments.
2. One file of fixed length records named Electronic Billing File.

The required format for the Electronic Billing File will be provided to the contractor after contract award. All centralized billing files shall be labeled with the following additional information:

1. Contractor Account Number (assigned by TOPS after contract award)
2. GSA system number (assigned by TOPS after contract award)
3. File Name (e.g., Order Activity File or Electronic Billing File)

The fields of the TOPS Order Activity File, Recurring Charges File, and Billing Adjustments File are as follows:

1. Order Activity File
 - a. TOPS Work Site ID CHAR(4)
A unique identifier for a location or address in TOPS. The work site may be a single building, or consist of multiple buildings or facilities that are considered to be a single work site.
 - b. Product ID_Number CHAR(13)
A unique identifier of a particular piece of equipment or service. Known as the “product code.”
 - c. Task Order Number CHAR(40)
 - d. Quantity NUMBER(4)
The number of units of a piece of equipment for each product code.
 - e. Description of charge CHAR(65)
 - f. Contractor Order Number CHAR(11)
Unique order number assigned for an order for equipment and service.
 - g. Account ID NUMBER(9,2)
 - h. Nonrecurring Charge NUMBER(9,2)
One-time rate assessed for a unique product code.
 - i. Contractor Completion Date DATE(yymmdd)
The date the product code was placed into service for billing purposes.
2. Charges File
 - a. Work Site CHAR(4)

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- A unique identifier for a location or address in TOPS. The work site may be a single building or consist of multiple buildings or facilities that are considered to be a single work site.
- b. Product Code CHAR(13)
A unique identifier used within TOPS to identify a particular piece of equipment or service.
 - c. Task Order Number CHAR(40)
 - d. Quantity NUMBER(4)
The number of units of a piece of equipment for each product code.
 - e. One Time Charge CHAR(25)
 - f. Monthly Charge NUMBER(9,2)
The monthly rate for a unique product code.
 - g. Contractor Completion Date DATE(yymmdd)
The date the product or service was placed into the inventory for billing purposes.
3. Billing Adjustments File
- a. Tops Work Site ID CHAR(4)
 - b. Product Code CHAR(13)
 - c. Contractor Order Number CHAR(11)
 - d. Contractor Completion Date DATE(yymmdd)
 - e. Adjustment Type NUMBER(6)
 - f. Adjustment Description NUMBER(30)
 - g. Amount of Adjustment CHAR(18)
 - h. Effective Date DATE(yymmdd)
 - i. Reserved CHAR(12)
 - j. Reserved CHAR(2)
 - k. Reserved NUMBER(9,3)
 - l. Reserved CHAR(2)

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m. Reserved

If the contractor chooses to interface with TOPS, he shall prepare test files from each file type and transfer the files via the agreed electronic medium (FTP, CD-ROM, diskettes, or e-mail attachments) to the address below:

TOPS Program Office (TRC-TOPS)
10304 Eaton Place
Fairfax, VA 22030

The test files shall be sent to the TOPS Program Office within 45 days after the Notice to Proceed with centralized billing. After GSA deems the files usable, the ACO will notify the contractor; and the contractor shall overnight the files or FTP them on a monthly basis to the TOPS production system in Kansas City at the following address:

GSA/FTS TOPS Media
8930 Ward Parkway
Kansas City, MO 64114

G.7.2 Associated Government Fee(s)

The contractor shall collect the Associated Government Fee(s) from CONNECTIONS customers on a monthly basis throughout the life of the contract. The fee(s) represents any direct or indirect costs incurred by the Government associated with the CONNECTIONS contract such as, but not limited to, contract administration fees. The fee(s) could be a percentage, a set fee, or combination thereof. The fee(s) will be applied to products, services, or any other billed charges.

This fee collection requirement is subject to the following:

1. The fee(s) shall be included in the billed price of products, services, or any other billed charge, unless identified and directed by the GSA ACO to be a separate line item.
2. The Government reserves the right to adjust the Associated Government Fee(s) at any time during the life of the contract. The contractor shall effect the addition, adjustment or deletion of a fee only upon written notice of the GSA ACO or designee. The contractor shall implement the revised fee(s) to be effective for invoicing in the next complete billing cycle. The contractor shall add, adjust or delete the fee(s) at no additional cost to the Government.
3. The contractor shall forward the fee(s) to the Government by electronic funds transfer. The contractor shall notify the GSA ACO or designee by e-mail within 24 hours of completion of the transfer. The email shall indicate the fee amount, the task IDs that this fee reflects, the date of the monthly *Financial Status Report* that is being used to collect the fee. Collection and supporting documentation shall be subject to audit as defined in FAR 52.215-2 (Audit and Records).

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4. The contractor shall forward payment via electronic funds transfer within 45 calendar days of the close of each calendar month, except for August billing when payment will be due by September 20th.
5. If the full amount of the fee(s), based on the amount collected from billed customers, is not paid within the period specified by item 4 above, the nonpayment shall constitute a contract debt to the United States Government under the terms of Part 32.6 of the FAR. Interest shall be due and payable by the contractor on the entire amount owed at the prevailing U.S. Treasury rate. This interest calculation shall begin on the last calendar day of the month it is owed and shall continue until the entire amount owed is collected. The Government may exercise all rights available to it under the Debt Collection Act of 1982.
6. Failure to submit the monthly *Associated Government Fees Summary Report* (see Section G.6.1.2), falsification of this report, or failure to pay the fee(s) in a timely manner may result in termination of this contract for default under FAR 52.249-8, Default (Fixed-Price Supply and Service).

G.7.3 Bills for Final Payment

Bills for final payment must be so identified and submitted when tasks have been completed and no further charges are to be incurred. A copy of the written acceptance of task completion must be attached to final bills. These close-out bills, or a written notification that final invoicing has been completed, must be submitted to the ordering agency within 90 calendar days of order completion. All charges not submitted within 90 calendar days shall be borne by the contractor unless a request for extension is formally approved by the DAO.

G.7.4 Bill-Submission Schedule

The contractor shall submit a bill for the equipment or services delivered in accordance with the specifications of Section C and this section.

G.7.5 Bills for Fixed-Price Delivery Orders

A contractor bill reflecting amounts for fixed-price orders shall not exceed the fixed price approved for that deliverable product or service in the order and shall be submitted for those deliverable products or services that have been accepted by the Government.

G.7.6 Retention of Bills

The original paid bills related to a specific order or shall be maintained by the contractor for the life of the contract and made available to Government auditors upon request. Copies of contractor paid bills, receipts, and travel vouchers completed in accordance with Federal Travel Regulations shall be maintained by the contractor and made available to the Government upon request.

G.7.7 Government Payment Office/Bill Submission

The original of each contractor bill with supporting documentation shall be submitted to the office listed on the order. In addition, one copy of each bill shall be submitted to the GSA

Program Manager's Office at the address specified in the order. If requested by the ACO or DAO, the contractor shall submit a copy of required bills to another DAO for certification of technical compliance prior to submitting to the paying office.

G.8 Payment of Bills

Payment of invoices will be made in arrears based upon acceptance by the Government of the entire task or the tangible products delivered. The Government will pay only for hours authorized, worked, and accepted.

If the supplies or services are rejected for failure to conform to the technical requirements of the contract, or any other contractually legitimate reason, the contractor will not be paid or will not be paid in full.

G.8.1 Reserved

G.8.2 Payment for Supplies/Services

Approval for payment of contractor bills will only be made upon customer acceptance of billed equipment or services. For orders that have no tangible products, payment of the bill will be based upon DAO certification that satisfactory services were provided and contractor certification that the charges are accurate. The customer will only make payments for work authorized in the order.

G.8.3 Billing Disputes

The contractor shall resolve billing disputes directly with the dispute initiator unless the dispute involves the terms and conditions of the CONNECTIONS contract, in which case the dispute shall be resolved with the GSA ACO. The contractor shall propose a mechanism for uniquely identifying each billing dispute to permit the dispute initiator to track the status. The contractor shall attempt to resolve billing disputes to the satisfaction of the dispute initiator within 60 calendar days following official notification from the Government. The contractor shall take a proactive lead in resolving disputes promptly with the initiator of the dispute by establishing and maintaining meaningful dialogue directed toward a prompt, fair, and equitable resolution. In cases where a resolution is not forthcoming, the contractor shall submit partial resolutions (less than the total amount in dispute) to the dispute initiator for acceptance or denial. The DAO or the dispute initiator will respond within five business days with a proposed resolution. If either party wants to escalate the dispute to the ACO at any time, they may do so. Disputes that are not resolved within 60 calendar days or the approved extension time shall be escalated to the ACO. Any disputes escalated to the ACO will be resolved in accordance with Federal Acquisition Regulation (FAR) 52.233-1 (*Disputes*).

Once a dispute is resolved, the contractor shall process the associated credit or debit within two billing cycles, making sure that the debit or credit and the associated billing dispute identifier are clearly documented in the bill and assigned to the proper Billing Account Code.

G.8.4 Use of Electronic Funds Transfer

The contractor shall cooperate with the Government to allow payment of bills via Electronic Funds Transfer (EFT) to the extent feasible. The specific payment method used shall be negotiated on a customer-by-customer basis after contract award.

If agreed to by the customer and the contractor, the agency shall pay approved CONNECTIONS charges via EFT. Otherwise, the parties shall agree on an alternative payment mechanism.

This clause shall apply to bills submitted during this contract, any extension thereof, and any contract Continuity of Services period if the parties agree to use EFT. However, either of the parties may, without explanation and by giving the other party 60 calendar days written advance notice, terminate the applicability of this clause and negotiate an acceptable alternative.

When an EFT payment plan is in effect, the following clauses (or portions of clauses) are applicable:

- I.1.57 FAR Clause No. 52.232-25 Prompt Payment (JUN 1997)
- I.1.55 FAR Clause No. 52.232-17 Interest (JUN 1996)
- GSAM 552.232-8 Discounts for Prompt Payment

Unless otherwise stipulated in the order, the EFT procedure shall incorporate the following requirements:

1. Consistent with the requirements of Section G.7, the contractor shall submit a monthly bill, in the form and format prescribed, to each customer agency or sub-agency who uses EFT payment option not later than the 15th working day of each month after the close of each billing period.
2. A discount for exceeding prompt payment by the Government shall be applied to the total current amount being billed on each bill under this EFT process. The discount shall be equal to the Treasury Department Value of Funds Rate in effect on the date the bill is submitted plus any applicable penalties.
3. Upon submission of the individual monthly bill, the contractor will be authorized by the agency or sub-agency to directly access the financial institution designated to withdraw the total billed amount with discount applied, not to exceed a maximum monthly amount (prescribed and periodically updated at six month intervals by the DAO). Payment shall be considered to have been made one working day after the date on which the bills were submitted.

G.9 Program Development

The contractor shall be responsible for a *Marketing Plan* and marketing materials that it deems necessary to continually expand customer agency awareness of this contract. The contractor shall describe in the *Marketing Plan* the products and services that will be sold, the target customers, the competition, the contractor's market-share objectives, and the plan for achieving this objective. The contractor is responsible for ongoing sales and marketing during the life of

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this contract as specified in Section C.1.4.2. This Program Development shall commence not later than 30 calendar days following contract award.

G.9.1 Marketing Efforts

The contractor is responsible for ongoing marketing efforts during the life of this contract as specified below. This will commence not later than 30 calendar days after contract award, subject to the following:

- All marketing brochures shall conform to the requirements of the GSAR 552.203-71 and be approved by the PCO/ACO prior to issuance.
- Contractors shall not charge marketing costs as a direct cost item.
- Approval for marketing by the contractor does not obligate GSA to undertake, under this contract, any potential work identified.

G.9.1.1 Marketing Calls

The contractor shall prepare and give formal presentations to prospective GSA customers on the contract when requested by the Government. These presentations will be consistent with materials previously reviewed and approved for use by GSA. The contractor shall also conduct marketing calls, and provide informal program and contract briefings.

G.9.1.2 Marketing Materials

The contractor shall provide marketing materials that will enhance program and service visibility. The types of marketing materials provided shall be at the discretion of the contractor and may include brochures, pamphlets, visual aids, newsletters, technology updates, white papers, news releases, training tools and seminars, work tools and materials such as quick reference estimating/measuring tools, folders, pens, mouse pads, rolodex cards, and literature. The contractor shall provide sample marketing materials prior to distribution. GSA will have five working days to review and approve materials.

G.9.1.3 Trade Shows and Exhibitions

The contractor shall participate in at least two trade shows/exhibitions per contract year. GSA shall be notified at least two weeks prior to a show/exhibition in which the contractor plans to participate.

G.9.2 Marketing Meetings/Conferences

Meetings/conferences may be necessary to market services, resolve problems, or to facilitate understanding of the requirements of the contract. The participants at these

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meetings/conferences shall include members of the contractor's staff, the customer, and other representatives of the Government. The GSA PCO/ACO and the contractor shall schedule these meetings/conferences. All contractor costs associated with the attendance at these meetings shall be incidental to the contract and shall not be separately billed.

Section H: Special Contract Requirements

H.1 Term of Contract

The effective period of this contract is for a base period of three years (36 months) from date of award and, at the option of the Government, five successive one-year renewal options.

H.2 Overall Contract Minimum Amount

The Government shall guarantee a minimum of \$1,000 to each awardee under this contract during the base period, subject only to adjustment in accordance with the dollar limits that would apply in the event that the Government exercises its rights under the Termination Clauses of this contract. Orders of any items listed under Section B of this contract, and any Other Direct Costs associated with any orders awarded will apply toward this minimum guarantee.

H.3 Overall Contract Maximum Amount

The maximum amount for each contract is \$35 Billion. However, since the total amount for all contracts will not exceed \$35 Billion, as more orders are issued under one contract, the value of orders which can be issued under the other contracts decreases by an equal amount.

H.4 Authorized Users

1. This contract is for the use of all Federal agencies; authorized Federal contractors; agency-sponsored universities and laboratories; and as authorized by law or regulation, state, local, and tribal Governments, and other organizations. All organizations listed in General Services Administration (GSA) Order ADM 4800.2D (as updated) are eligible.
2. The Government has the right to add authorized users as defined in the above paragraph at any time during the term of this contract.

H.5 Minimum Subcontracting Goals

Because of the size, scope, and magnitude of this acquisition, the Government anticipates substantial subcontracting opportunities for small business concerns. The contractor shall provide a Subcontracting Plan that conforms to the requirements herein and those in Section J. The Government intends to monitor the contractor's adherence to the Subcontracting Plan and continually work to ensure the maximum practicable participation of small business concerns in the FTS Program. In support of this effort, the contractor shall provide to the GSA ACO, on a semi-annual basis:

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1. A concise written summary of progress in the contractor's subcontracting outreach program (as described in the contractor's Subcontracting Plan)
2. A list of subcontracts awarded and any letters of commitment
3. An updated checklist which tracks adherence to the provisions of the Subcontracting Plan
4. Semi-annual meetings with representatives of the Contracting Office, the Program Management Office, and the Small Business Administration to discuss the contractor's activity in the contractor's subcontracting program

The contractor, in addition to the requirement to file a Standard Form (SF) 294 or SF 295 *Subcontracting Report* as required in FAR 52.219-09, shall provide the GSA ACO *Subcontracting Report* backup data. The backup data shall consist of a spreadsheet showing, in chronological order of subcontract award, the work activities, the dollar value of each subcontract, and the name and size of the business concern to which the subcontract was awarded. The information in the backup data shall correlate with the contractor's SF 294 or SF 295 *Subcontracting Report*.

The minimum target subcontracting goals for this acquisition are:

Total Small Business	40%
Small Disadvantaged	10%
Women-Owned	5%
Veteran Owned*	5%
HUBZone Certified	2.5%

*Disabled Veterans are included in the overall Veteran owned goal.

H.6 Restricted Activities and Standards of Conduct

The contractor and its employees shall conduct business covered by this contract only during periods paid for by the Government and shall not conduct any other business on Government premises. The contractor shall not use Government materials except for the express purpose of providing Government support.

The contractor shall not provide assistance to customer personnel in developing customer requirements except as directed in performance of task duties. If requested by the customer to provide such non-task related assistance, the contractor shall immediately contact GSA to preclude the possibility of conflicts of interest. If the contractor is required to prepare or assist in the preparation of a SOW to be used in a competitive procurement, GSA or any customer will not consider the contractor, its successor-in-interest, assignee, nor affiliates a prime source of supply for, nor allow it to be a subcontractor or consultant to the competitive procurement.

H.7 Personnel Conduct

Personnel assigned by the contractor to work on this contract must be acceptable to the Government in terms of personal and professional conduct. Contractor management shall provide sufficient oversight and supervision to ensure employees (direct or subcontracted), are fulfilling their technical responsibilities and doing so in the best interest of the Government. It is understood that any personnel assigned by the contractor or subcontractor to the performance of the work hereunder, if in conflict with the best interests of the Government, shall be immediately removed from the assigned position. The CO may elect to direct the retention of an individual on a task until a replacement has been approved, or reported, or until a transition has occurred.

Employment and staffing difficulties shall not be justification for failure to meet established schedules, and if such difficulties impair performance, the contractor may be subject to default.

H.8 Organizational Conflicts of Interest

The contractor and any subcontractors are hereby placed on notice that they may be precluded from participating in future federal contract competitions for the furnishing of systems, subsystems, major components, or other hardware or software items, resulting from specifications, statements of work, or other services performed under an order on this contract, for a period of 24 months after completion of the order. The guidelines and procedures of FAR Subpart 9.5 will be used in identifying and resolving any issues of organizational conflicts of interest.

In the event that orders issued under this contract require the contractor to gain access to proprietary information of other companies, the contractor shall be required to execute agreements with those companies to protect the information from unauthorized use and to refrain from using it for any purpose other than for which it was furnished.

H.9 Disclosure of Information

The Contractor recognizes that in the performance of this contract it may receive or have access to certain sensitive information, including information provided on a proprietary basis by carriers, equipment manufacturers and other private or public entities. The Contractor agrees to use and examine this information exclusively in the performance of this contract and to take the necessary steps in accordance with Government regulations to prevent disclosure of such information to any party outside the Government or Government designated support Contractors possessing appropriate proprietary agreements, as listed in the paragraphs below.

1. Any GSA or Government information made available shall be used only for the purpose of performing contract requirements and shall not be disclosed in any manner to any person except as may be necessary in the performance of the contract.

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2. In performance of this contract, the contractor agrees to assume responsibility for protecting the confidentiality of Government records and for ensuring that all work is performed under the supervision of the contractor or the contractor's responsible employees.
3. Each officer or employee of the contractor to whom information may be made available or disclosed shall be notified in writing by the contractor that information disclosed to such officer or employee can be used only for the purpose and to the extent authorized herein. Use of such information for a purpose or to an extent unauthorized herein may subject the offender to criminal sanctions imposed by 18 United States Code (U.S.C.) Section 641. The law provides, in pertinent part, that whoever knowingly converts to their use or the use of another, or without authority sells, conveys, or disposes of any record of the United States or whoever receives the same with intent to convert it to their use or gain, knowing it to have been converted, shall be guilty of a crime punishable by a fine of up to \$10,000, or imprisonment of up to 10 years, or both.
4. The Contractor further agrees to sign an agreement to this effect with carriers, and other private or public entities providing proprietary data for performance under this contract. One copy of each signed agreement shall be forwarded to the ACO. These shall be signed prior to work commencing.

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NONDISCLOSURE AGREEMENT FOR CONTRACTOR EMPLOYEES

I, _____ (print or type name), as an employee of _____ (insert name of company), a Contractor acting under contract to the General Services Administration, Federal Technology Service, in administering an unclassified and/or classified system support for _____ (client agency name), pursuant to contract number _____ (insert contract number), agree not to disclose to any individual business entity or anyone within _____ (insert name of employee company) or outside of the company who has not signed a nondisclosure agreement for the purposes of performing this contract: any sensitive, proprietary or source selection information contained in or accessible through this project. Proprietary information/data will be handled in accordance with Government regulations.

I understand that information/data I may be aware of, or possess, as a result of my assignment under this contract may be considered sensitive or proprietary. The Contractor's responsibility for proper use and protection from unauthorized disclosure of sensitive, proprietary and source selection information is described in Federal Acquisition Regulation (FAR) section 3.104-5(b). Pursuant to FAR 3.104-5, I agree not to appropriate such information for my own use or to release or discuss such information for my own use or to release it to or discuss it with third parties unless specifically authorized in writing to do so, as provided above.

This agreement shall continue for a term of five (5) years from the date upon which I last have access to the information therefrom. Upon expiration of this agreement, I have a continuing obligation not to disclose sensitive, proprietary, or source selection information to any person or legal entity unless that person or legal entity is authorized by the head of the agency or the contracting agency or the contracting officer to receive such information. I understand violations of this agreement are subject to administrative, civil and criminal sanctions.

THIS STATEMENT CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT STATEMENT MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER TITLE 18, UNITED STATES CODE, SECTION 641.

(Signature of Contractor Employee)

Date

(Contractor)

(Employee Telephone No.)

H.10 Internal Revenue Service (IRS): Disclosure of Information - Safeguards and Sanctions

The contractor agrees to comply, and to assume responsibility for its employees' compliance, with the IRS's statutory requirements for disclosure of information as specified by the following:

1. All work shall be performed under the contractor's, or the contractor's responsible employees' supervision.

2. Any Federal Tax Return or Return information (as defined in Internal Revenue Code [IRC] 6103[b][1] and [2]) made available to the contractor shall be used only for the purpose of carrying out the provisions of this contract. Information contained in such material shall be treated as confidential and shall not be divulged or made known in any manner to any person except as may be necessary in the performance of the contract. Disclosure to anyone other than an officer or employee of the contractor shall require prior written approval of the IRS. Requests to make such disclosures should be addressed to the GSA Administrative Contracting Officer (ACO).
3. Each officer, employee, or any other person to whom returns or return information is or may be disclosed shall be notified in writing that returns or return information disclosed to such officer or employee can be used only for the purpose and to the extent authorized herein, and that further disclosure of any such returns or return information for a purpose or to an extent unauthorized herein constitutes a felony punishable upon conviction by a fine of as much as \$5,000.00 or imprisonment for as long as five years, or both, together with the costs of prosecution. Such person shall also notify each such officer or employee that any such unauthorized future disclosure of returns or return information may also result in an award of civil damages against the officer or employee in an amount not less than \$1,000.00 with respect to each instance of unauthorized disclosure. These penalties are prescribed by IRC Sections 7213 and 7431 and set forth at 26 Code of Federal Regulations (CFR) 301.6103(n).
4. Additionally, the contractor is required to inform its officers and employees of the penalties for improper disclosure that are imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a(i)(1), which is made applicable to contractors by 5 U.S.C. 552a(m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position, has possession of or access to customer records that contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or disclosure of the specific material is so prohibited, willfully discloses this information to someone who is not entitled to receive it, shall be guilty of a misdemeanor and fined not more than \$5,000.00.

H.11 Contractor Performance Information

In conformance with the Government's need to record and maintain information on contractor's performance during the life of this contract, the Government will periodically evaluate the manner in which the contractor is performing contract requirements in such areas as, but not limited to: quality of service; customer service; cost efficiencies; timeliness; history of reasonable and cooperative behavior; and professionalism. Information obtained as a result of the evaluations may be shared with Government agencies for their use in support of future award decisions (reference FAR 42.15).

H.12 Transition

The contractor shall not recruit on Government premises or otherwise act to disrupt Government business.

Upon contract award and following a contract start-up meeting, GSA will provide the contract awardees with a list of designated GSA points of contact.

The contractor shall have management and administrative support in place to receive task requests at the time of the Notice to Proceed on this contract. The Notice to Proceed will be not less than 15 working days after award. Addresses, telephone numbers, and functional responsibilities shall be provided to the PCO at this time.

H.13 Phase Out of Contract and Continuity of Services

If a successor contract is awarded prior to the final expiration date of this contract, the Government may issue orders to the successor contractor prior to the expiration date of this contract.

The contractor must recognize that services under this contract are vital to the Government and must be continued without interruption and that upon contract expiration, a successor, either the Government or another contractor, may continue such services. The contractor agrees to exercise its best efforts and cooperation to effect an orderly and efficient transition.

Orders scheduled to be completed after the expiration of this contract, may be terminated for the convenience of the Government, and issued to the successor contractor. The incumbent contractor shall maintain adequate administrative and management support for active orders after contract expiration, for at least 90 days.

The contractor shall provide phase-in, phase-out services, at no additional cost to the Government, as long as there is any active order. Appropriate task management personnel shall meet with the successor contractor to coordinate task transition. Discussions shall include personnel transition to the successor contractor, and the transition of task specific items such as Government or contractor furnished supplies, materials, equipment, and services.

H.14 On-Call Service

Contractors shall not be reimbursed for work performed while on on-call status away from the work site. The work site is defined as either the contractor's premises or the Government site where work is being performed.

Contract employees on on-call status shall have a qualified backup in the event they are unable to respond to a call.

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Requests for on-call services may be made orally by the Government to the contractor's management by Designated Agency Officials, but shall be documented in written form within five working days.

When required to report to the work site outside of the employee's normal work hours, the contractor shall be paid, as a minimum, for two hours of service at the fixed hourly rates established in the contract. The two hours minimum includes travel time. Travel expenses will be paid by the Government in accordance with the local travel terms and conditions of this contract.

H.15 National Emergency

In time of a national emergency and/or war, the contractor maintenance personnel shall continue performance in accordance with the contract.

H.16 Electronic Access to the Contract

The contractor is hereby advised that a redacted version of the contract and all modifications that includes prices for the base period shall be made available on an electronic bulletin board and/or the Internet.

The contractor shall submit both a redacted version and a non-redacted version of the contract and any modifications, including the contractor proposal incorporated by reference, in the format requested.

The redacted version shall be prepared in accordance with Freedom of Information Act guidance and will be approved by the GSA ACO before release.

To facilitate this process, the contractor shall provide deliveries of both electronic and paper copies of the contract and any contract modifications within 20 Government working days after the Notice to Proceed or a contract modification.

In accordance with the Federal Acquisition Regulation (FAR) Part 15.207, the Government will take the necessary and usual steps to maintain the confidentiality of information submitted by the offeror prior to award of the contract and modifications. The contractor is advised that upon award, the Government will make the current year's contract prices publicly available for each year of the contract (up to eight years) from the first day to the last day of the contract.

H.17 Price Reductions

1. The contractor may waive any non-recurring charge, including an installation or Service Initiation Charge or a Cancellation Charge (CC), at any time, to any customer.

2. The contractor may reduce contract prices at any time. Price reductions shall be subject to the following conditions:
 - a. The contractor shall propose all price reductions to the GSA ACO.
 - b. The proposed price reduction shall become effective on the first day of the next invoicing period.
 - c. Price reduction proposals shall include all contract pricing tables, and the effective date(s) of the price reduction. The contractor shall provide all revised pricing tables in an electronic format (or formats) that complies with contractual specifications.

H.18 Geographic Area Related

With respect to any unique imposed taxes identified by the contractor, the Government generally will pay taxes as they apply to the geographic area served under this contract, with the following exception: Taxes from which the Federal Government is expressly exempt under the authorizing state statute or local ordinance.

H.19 Deductions

H.19.1 Additional Terms and Conditions for Failure to Provide Service or Meet Contract Requirements

If services are delayed, the Government may terminate this contract or cancel an order in whole or in part, under the *Default (Fixed-Price Supplies and Services)* (APR 1984), FAR 52.249-8. However, the Government may elect not to terminate or cancel the order and instead accept consideration in lieu thereof. Consideration will be negotiated on an individual-case basis between the Government and the contractor.

H.19.2 Retention of Government Rights

Notwithstanding any provision of this section or any Government action taken under the provisions of this section, the Government retains all rights and remedies available to it under any other provisions of this contract under law.

H.20 News Releases

News releases pertaining to this contract shall not be made without prior approval of the GSA ACO. A minimum of two working days notice is required for approval.

H.21 Facilities, Supplies and Services

H.21.1 Off-Site Task Order Related Services

The Government anticipates that some orders for contract equipment and services associated with this contract will not be supported on Government facilities. An order may direct that required work be performed at a facility to be furnished by the contractor. The order may also indicate restrictions on the location of the contractor's facility such as within 60 minutes of the customer's facility, or within 30 miles of the customer's facility. In addition, the contractor may be requested to provide the following office and task specific items:

- ◆ Office, workspace, telephone and Internet access
- ◆ State of the art equipment with reasonable refreshment, including computer hardware, software, networks, electronic interfaces to company and GSA; and on orders, to customer systems
- ◆ Materials, supplies and services
- ◆ Security systems, devices and equipment, including safeguarding of classified materials to the secret level

H.21.2 Contractor Supplied

The contractor shall furnish the following at no direct cost to the Government:

- Contract-related services are administrative and management functions necessary to support the contract, and the hardware, software, and communications systems necessary to interface effectively and efficiently with the GSA. These include, but are not limited to: financial management, recruiting, interviewing, training, payroll preparation, travel arrangements, task proposal preparation, obtaining security clearances, contracting, and clerical support.
- Office and working space for contract-related services.
- Office equipment and expenses necessary to perform contract-related services including: IT and network operations, printing, photocopying, communications, postage, express mail, paper and copying supplies, local and long distance telephone service, and other services, equipment and supplies required in support of this contract.
- Proposed tools and methodologies

H.21.3 Government Supplied

The Government will furnish, at no cost to the contractor, when required and authorized by the order:

- For on-site work, work space, furnishings, telephone service, supplies, equipment, and materials will be provided. Computer hardware, software, communication networks, printers, and other peripherals and resources available from the Government and required for order performance.
- For off-site work, individual high cost items or difficult-to-obtain pieces of equipment or materials, and very specialized or unique equipment directly related to the order. Where possible and appropriate, external access to Government facilities and resources will be provided.
- Government forms, publications, documents, and other information required for order performance

H.21.4 Reimbursable Contractor Supplies, Equipment and Services

If the Government determines that it is unable to furnish equipment, materials, supplies, and services, which would otherwise be provided to the contractor at no cost due to order performance being at an on-site Government provided facility, or a high cost item at an off-site contractor furnished facility, the contractor (when authorized by an order) shall obtain the necessary resources as a direct cost to the order, subject to the following conditions:

- The resources shall be obtained from sources that are most advantageous to the Government, price and other factors considered
- The contractor is authorized to acquire equipment, materials, supplies, and services for performance on an order, and ultimate ownership by the Government (except services), if the expenditure has been authorized as a direct cost. All purchases shall be made in accordance with applicable Government acquisition regulations.

H.22 Permits

The contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any applicable Federal, state, and municipal laws, codes, and regulations, and any applicable foreign work permits, authorizations, etc., and/or visas in connection with the performance of the contract.

H.23 Special Requirements For Work In Areas Containing Asbestos

1. This contract incorporates those requirements of the Occupational Safety and Health Administration (OSHA) asbestos regulations contained in Title 29, Part 1910 of the CFR. All installation and/or site preparation work undertaken in areas containing asbestos shall be conducted in accordance with these requirements. If during the course of performance under this contract, the contractor suspects contact with hazardous or toxic materials/substances, such as asbestos, polychlorinated biphenyls (PCBs), explosives, or radioactive materials, as specified in Subpart H and Z of 29 CFR 1910 and Federal Standard 313, the contractor shall immediately inform the GSA ACO of these harmful materials/substances, their exact whereabouts, and the identity of those individuals who have been exposed to these harmful materials/substances.
2. The contractor shall stop work immediately upon discovery of asbestos and shall incur no penalties for delay, provided all other requirements of Section C are met. The Government does not intend to require the contractor to remove asbestos. However, extraordinary costs can be recovered via ODC if the contractor agrees to help with its removal.
3. The contractor shall not disturb suspected harmful materials/substances but shall take responsible measures to prevent exposure to individuals, pending receipt of direction from the GSA ACO. The GSA ACO will coordinate any necessary action with the GSA COTR and the building owner.

The contractor shall maintain full responsibility and liability for compliance with all applicable regulations pertaining to the protection of workers, visitors to the site and persons occupying affected and adjacent areas. The contractor shall hold the Government harmless against injury resulting from failure on the contractor's part or on the part of the contractor's employees or subcontractors to comply with any applicable safety or health regulation.

H.24 Historic Buildings

The contractor shall be in compliance with 36 Code of Federal Regulations (CFR) Part 800 and all aspects of the *Handbook Procedure for Historic Properties*, March 2, 1981, PBS P 1022. For any historic buildings requiring labor services, the contractor shall provide a plan for the proposed types of work that will occur. This Site Preparation Plan (Historic Building) will be reviewed by the Historical Preservation Officer, Public Buildings Service (PBS) and the applicable State Historic Preservation Office to determine if the proposed types of work are in compliance with the Secretary of Interior's Standards. If the proposals are found to be acceptable, the appropriate approval documents will be issued by the PBS authorizing the contractor to proceed with the installation.

Under no circumstances shall the contractor proceed with work in a historic building until the appropriate approval to proceed has been issued. This requirement applies to all buildings that are on the National Historic Register listing.

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As soon as any work is contemplated, the contractor shall contact the involved building managers, who in turn will contact and work closely with the Historical Preservation Officer(s). Further contacts with the appropriate State Historical Preservation Officers, the National Advisory Council on Historical Preservation and other concerned authorities will be coordinated through the designated Historical Preservation Officers. Extraordinary costs associated with working in historic buildings may be billed as ODC.

H.24.1 Historical Preservation Officer - Public Buildings Service (PBS)

Contact: Name: (To be identified at or after contract award)
 Location: (To be identified at or after contract award)
 Telephone No: (To be identified at or after contract award)

H.24.2 Historic Buildings Reference Documents

All work performed in historical buildings shall conform to the requirements contained in the documents identified in this section.

1. *Maintenance, Repair and Alterations of Historic Buildings*, August 20, 1981, PB82104928, Department of Commerce National Technical Information Service, Telephone 1-800-553-6847.
2. *Handbook Procedure for Historic Properties*, March 2, 1981, PBS P 1022.2, Available from the Contracting Officer.

H.25 Insurance

1. For the purposes of FAR 52.245-2(g), delivery of the Government property to the CONNECTIONS contractor is deemed to occur upon issuance of the Notice to Proceed related to the Government Furnished Property (GFP) and satisfaction of Paragraph 2 below.
2. Upon submission of a Final Revised Proposal (FRP), the offeror shall provide, at its own expense and from its insurer(s) rated by A.M. Best at "A" or better and licensed to do business in each state in which the work related to the GFP is to be performed, a binding letter of commitment that guarantees after award the insurance outlined in items 2a through 2e. The coverage specified in items 2(a) and 2(b) may be provided through one or more policies other than standard Commercial General Liability and Automobile Liability, provided that the resulting coverage is equal to or greater than the coverage described in items 2a and 2b. Said policies shall provide that policies shall not be changed, altered or cancelled until thirty (30) days written notice has been given to the Government. Any such cancellation, change or alteration shall not relieve the offeror of its continuing obligation to maintain insurance coverage in accordance with this Section. Within 15 days after contract award, the CONNECTIONS

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contractor shall provide a certified copy of the insurance policies or policy addendum(s) by this Paragraph 2.

- a. Workers' compensation and employer's liability. Contractors are required to comply with applicable Federal and State workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with a contractor's commercial operations that it would not be practical to require this coverage. Employer's liability coverage of at least \$100,000 shall be required, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers. (See 28.305(c) for treatment of contracts subject to the Defense Base Act.)
- b. General liability.
 - 1) The contractor shall obtain bodily injury liability insurance coverage written on the comprehensive form of policy of at least \$500,000 per occurrence.
 - 2) Property damage liability insurance shall be required only in special circumstances as determined by the agency within an order. Commercial General Liability Insurance, on an occurrence basis, including but not limited to premises-operations, broad form property damage, products/completed operations, contractual liability, independent contracts, and personal injury, with minimum limits as identified in the order (combined single limit for each occurrence).
- c. Automobile liability. The contractor shall obtain automobile liability insurance written on the comprehensive form of policy. The policy shall provide for bodily injury and property damage liability covering the operation of all automobiles used in connection with performing the contract. Policies covering automobiles operated in the United States shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury and \$20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.
- d. Aircraft public and passenger liability. When aircraft are used in connection with performing the contract, the contractor shall obtain aircraft public and passenger liability insurance. Coverage shall be at least \$200,000 per person and \$500,000 per occurrence for bodily injury, other than passenger liability, and \$200,000 per occurrence for property damage. Coverage for passenger liability bodily injury shall be at least \$200,000 multiplied by the number of seats or passengers, whichever is greater.

- e. Vessel liability. When contract performance involves use of vessels, the contractor shall obtain appropriate vessel collision liability and protection and indemnity liability insurance.

H.26 Limitation of Warranty for Government Furnished Software

In lieu of any other warranty expressed or implied herein, the Government warrants that any programming aids and software packages supplied for contractor use as Government-furnished property shall be suitable for their intended use on the system(s) for which designed. In the case of programming aids and software packages acquired by the Government from a commercial source, such warranty is limited to that set forth in the contractual document covering the product(s).

Should Government-furnished programming aids or software packages not be suitable for their intended use on the system(s) for which designed, except where such property is furnished "as is," the contractor shall notify the CO and supply documentation regarding any defects and their effect on progress under this contract. The CO will consider equitably adjusting the delivery performance dates or order price, or both, and any other contractual provision affected by the Government-furnished property in accordance with the procedures provided for in the clause of this contract entitled "Changes".

H.27 Contractors Commitments, Warranties, and Representations

Any written commitments by the contractor within the scope of this contract shall be binding and shall render the contractor liable for damage to the Government under the terms of this contract. A written commitment by the contractor shall be limited to the proposal submitted by the contractor and to specific written modifications, further defined as including:

- Any warranty or representation made by the contractor in a proposal as to software, systems performance, and other physical design or functioning characteristics of a component or system.
- Warranties or representations made by the contractor concerning the characteristics of items, made in any literature, descriptions or specifications accompanying or referred to in a proposal.
- Written modification, affirmation, or representation as to the above which is made by the contractor in or during the course of negotiations, whether or not incorporated formally into the proposal.

H.28 Hold Harmless and Indemnification Agreement

The contractor shall save and hold harmless and indemnify the Government against any and all liability, claims, and costs of whatever kind and nature for injury to or death of any person or persons, and for loss, destruction, or damage to any property (including electronic storage areas), occurring in connection with or in any way incident to or arising out of the occupancy, use, service, operations, or performance of work under the terms of this contract,

resulting in whole or in part from the willful, negligent, or careless acts or omissions of the contractor, its subcontractors, or any employee, agent or representative of the contractor or its subcontractors.

H.29 Rehabilitation Act of 1973

Goods and services delivered under this contract shall meet the applicable technical provisions of the Access Board found at 36 CFR 1194, parts B, C and D or provide equivalent facilitation.

H.30 Other Direct Costs (ODC)

ODCs, for material necessary for performance of this contract, shall be specified in individual orders and shall be reimbursed in accordance with the "Compensation" and "Payments" clauses of this contract. Items not specifically incorporated into Section B may be proposed in response to an order request under ODCs provided that the items proposed are within the scope of the contract as set forth in Section C. The scope of each of the three CONNECTIONS categories is as defined in Section C. Individual orders, including those containing ODCs, will be placed in a single category; orders cannot be split between the three categories. If questions arise as to whether any proposed ODC item(s) is within the scope of the category in question in Section C, the questions will be referred to the GSA PCO for review and resolution before inclusion in the order. All terms and conditions of the CONNECTIONS contract shall be applicable to items proposed as ODCs on orders. All items proposed as ODCs shall be clearly labeled as such.

The Designated Agency Official (DAO) will establish the maximum allowable amounts of ODCs in accordance with the following limitations. For orders placed under Category 1, ODCs in excess of \$10 million will be referred to the GSA PCO for review and approval; for Category 2 orders, ODCs in excess of \$15 million will be referred to the GSA PCO for review and approval; for Category 3 orders, ODCs in excess of \$ 30 million will be referred to the GSA PCO for review and approval. The DAO determines, using the policies and methods set forth in FAR Subparts 15.4 and 16.505(b), that the prices for such items are fair and reasonable. The cost of general purpose items required for the conduct of the contractor's normal business operations will generally not be considered allowable ODC in the performance of this contract.

While items not specifically incorporated into Section B's price tables may be proposed in response to an order request, offerors are strongly encouraged to seek modification of the contract to add items that may be needed on multiple orders in order to minimize possible delays in the order process.

H.31 Changes

After contract award, the Government may, pursuant to the FAR Clause 52.243-1, Changes - Fixed Price, Alternate II, order changes within the scope of the contract. These changes may be required to improve performance, or react to changes in technology.

H.32 Key Personnel and Personnel Substitutions

Key personnel are those personnel considered essential to successful contractor performance. The Program Manager is the only key personnel under the basic contract.

The Program Manager shall be identified in the submitted proposal and shall commence work upon contract award.

All requests for approval of substitutions of key personnel under this contract must be in writing and provide a detailed explanation of the circumstances necessitating the proposed substitutions. They must contain a complete resume for the proposed substitute or addition, and any other information requested by the ACO. All substitutions proposed during the duration of this contract must have, at a minimum, the qualifications of the person being replaced. The ACO will evaluate such requests and promptly notify the contractor in writing of his determination to accept or reject the substitution.

The Government shall be notified within five days after substitution of key contract personnel.

When the contractor becomes aware that a task order employee will be, or is unavailable to work under this contract for a continuous period exceeding ten working days, the contractor shall immediately notify the ACO or the DAO or the appropriate Government representative, and replace such personnel with personnel of equal or superior qualifications, within ten working days of notification or as required by the Government.

Substitutions may be made in task staffing under the following conditions:

- The contractor shall notify the CO or DAO at least ten working days before making changes in task personnel from one task to another
- The contractor shall provide a replacement resume to the CO or DAO or appropriate Government representative at the time of notification
- The resume of the replacement shall be approved prior to assignment of the replacement and prior to transfer of the individual

H.33 Special Personnel Skills

Special personnel skills are those for which the expertise required or duties performed for orders are within the contract scope, but are so specialized or rare that they are not explicitly defined in a skill category description. The PCO will determine whether circumstances warrant use of this special skill category. Based on price or cost analysis, the PCO will negotiate a fair and reasonable labor rate (market rate) with the contractor for the special personnel skill on a task by task basis.

H.34 Service Improvements

1. After Contract award, the Government may solicit, and the contractor is encouraged to propose independently, improvements to the skills, services, features, or other requirements of the Contract. These improvements may be proposed to save money, to improve performance, or for any other purpose which presents a service advantage to the Government. As part of the proposed changes, the contractor shall submit a price proposal and revisions to the technical proposal to the PCO for evaluation. Those proposed service improvements that are acceptable to the Government will be processed as modifications to the Contract.
2. At a minimum, the following information shall be submitted by the contractor with each proposal:
 - a. A description of the difference between the existing Contract requirement and the proposed change, and the comparative advantages and disadvantages of each. This description shall include, in the case of addition or changes to skill categories, a brief description of the new or changed skill, clear and concise explanation of pricing methodology. Supporting documentation may include data such as recognized national or regional surveys as well as studies of professional, public, and private organizations, used in establishing the proposed rate and compensation structure. The government may supplement the information provided in the proposal through Dunn and Bradstreet reports, DCAA audits, available industry market rates, or other available means.;
 - b. Itemized requirements of the Contract which must be changed if the proposal is adopted, and the proposed revision to the Contract for each such change;
 - c. An estimate of the changes in performance and cost, if any, that will result from adoption of the proposal;
 - d. An evaluation of the effects that the proposed changes would have on collateral costs to the Government, such as Government-furnished property costs, costs of related items, and costs of maintenance, operation, and conversion (including Government-premise equipment);
 - e. A statement of the time by which the Contract modification adopting the proposal must be issued so as to obtain the maximum benefits of the changes during the remainder of this Contract including supporting rationale; and
 - f. Any effect on the Contract or completion time or delivery schedule shall be identified.
3. The Government will not be liable for proposal preparation costs or any delay in acting upon any proposal submitted pursuant to this clause. The contractor has the

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right to withdraw, in whole or in part, any proposal not accepted by the Government within the period specified in the proposal. The decision of the PCO as to the acceptance of any such proposal under this Contract is final and not subject to the "Disputes" clause of this Contract.

4. The ACO may accept any proposal submitted pursuant to this clause by giving the contractor written notice thereof. This written notice will be given by issuance of a modification to the Contract. Unless and until a modification is executed to incorporate a proposal under the Contract, the contractor shall remain obligated to perform in accordance with the requirements, terms, and conditions of the existing Contract.
5. If a proposal submitted pursuant to this clause is accepted and applied to this Contract issued hereunder, the equitable adjustment increasing or decreasing the Contract price shall be in accordance with the procedures of the "Changes" clause. The resulting Contract modification will state that it is made pursuant to this clause.

H.35 Reserved

H.36 Performance-Based Services Contracting (PBSC)

Pursuant to Federal Acquisition Regulation (FAR) Subpart 37.6, performance-based contracting techniques will be applied to task orders issued under this contract to the maximum extent practicable.

SECTION I: CONTRACT CLAUSES

I.1 52.252-2 Clauses Incorporated by Reference (Feb 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the CO will make their full text available. Also, the full text of a clause may be accessed electronically at this address:

<http://www.arnet.gov/far>
<http://www.arnet.gov/GSAM/gsam.html>

FAR Clauses (48 CFR Chapter 1) Incorporated by Reference

CLAUSE NUMBER	TITLE	DATE
52.202-1	Definitions	May 2001
52.203-3	Gratuities	Apr 1984
52.203-5	Covenant Against Contingent Fees	Apr 1984
52.203-6	Restrictions On Subcontractor Sales to the Government	Jul 1995
52.203-7	Anti-Kickback Procedures	Jul 1995
52.203-8	Cancellation, Rescission, And Recovery Of Funds For Illegal Or Improper Activity	Jan 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	Jan 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	Jun 1997
52.204-2	Security Requirements	Aug 1996
52.204-4	Printed or Copied Double-Sided on Recycled Paper	Aug 2000
52.209-6	Protecting The Government's Interest When Subcontracting With Contractors Debarred, Suspended, Or Proposed For Debarment	Jul 1995
52.211-5	Material Requirements	Aug 2000
52.214-34	Submission of Offers in the English Language	April 1991
52.214-35	Submission of Offers in U.S. Currency	April 1991
52.215-1	Instructions to Offerors-Competitive Acquisition.	May 2001
52.215-2	Audit And Records —Negotiation	June 1999
52.215-8	Order Of Precedence – Uniform Contract Format	Oct 1997
52.215-10	Price Reduction For Defective Cost Or Pricing Data	Oct 1997
52.215-11	Price Reduction For Defective Cost Or Pricing Data – Modifications	Oct 1997
52.215-12	Subcontractor Cost Or Pricing Data	Oct 1997
52.215-13	Subcontractor Cost Or Pricing Data – Modifications	Oct 1997
52.215-14	Integrity of Unit Prices	Oct 1997
52.215-15	Pension Adjustments And Asset Reversions	Dec 1998

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52.215-16	Facilities Capital Cost of Money	Oct 1997
52.215-17	Waiver of Facilities Capital Cost of Money	Oct 1997
52.215-18	Reversion Or Adjustment Of Plans For Post Retirement Benefits (PRB) Other Than Pensions	Oct 1997
52.215-20	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data	Oct 1997
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data-Modifications	Oct 1997
52.216-5	Price Redetermination – Prospective	Oct 1997
52.216-6	Price Determination—Retroactive	Oct 1997
52.216-7	Allowable Cost and Payment	Mar 2000
52.216-8	Fixed Fee	Mar 1997
52.216-10	Incentive Fee	Mar 1997
52.216-16	Incentive Price Revision—Firm Target	Oct 1997
52.216-17	Incentive Price Revision—Successive Targets	Oct 1997
52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns	Jan 1999
52.219-8	Utilization Of Small Business Concerns	Oct 2000
52.219-16	Liquidated Damages – Subcontracting Plan	Jan 1999
52.219-23	Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns	May 2001
52.222-1	Notice To The Government Of Labor Disputes	Feb 1997
52.222-3	Convict Labor	Aug 1996
52.222-21	Prohibition of Segregated Facilities	Feb 1999
52.222-26	Equal Opportunity	Feb 1999
52.222-29	Notification of Visa Denial	Feb 1999
52.222-35	Affirmative Action For Disabled Veterans And Veterans Of The Vietnam Era	Apr 1998
52.222-36	Affirmative Action For Workers With Disabilities	Jun 1998
52.222-37	Employment Reports On Disabled Veterans And Veterans Of The Vietnam Era	Jan 1999
52.223-5	Pollution Prevention and Right-to-Know Information.	Apr 1998
52.223-6	Drug-Free Workplace	May 2001
52.223-14	Toxic Chemical Release Reporting.	Oct 2000
52.224-1	Privacy Act Notification	Apr 1984
52.224-2	Privacy Act	Apr 1984
52.225-1	Buy American Act – Balance Of Payments Program – Supplies	Feb 2000
52.225-13	Restrictions On Certain Foreign Purchases	Jul 2000
52.226-1	Utilization Of Indian Organizations And Indian-Owned Economic Enterprises	June 2000
52.227-1	Authorization And Consent	Jul 1995
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	Aug 1996
52.227-10	Filing of Patent Applications-Classified Subject Matter	Apr 1984

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52.227-14	Rights In Data—General Alternate II & Alternate III	Jun 1987
52.227-19	Commercial Computer Software-Restricted Rights	Jun 1987
52.227-22	Major System-Minimum Rights	Jun 1987
52.228-5	Insurance – Work On A Government Installation	Jan 1997
52.228-7	Insurance-Liability to Third Persons.	Mar 1996
52.229-3	Federal, State, And Local Taxes	Jan 1991
52.229-5	Taxes—Contracts Performed In U.S. Possessions Or Puerto Rico	Apr 1984
52.229-6	Taxes – Foreign Fixed-Price Contracts	Jan 1991
52.229-7	Taxes – Fixed-Price Contracts With Foreign Governments	Jan 1991
52.230-2	Cost Accounting Standards	Apr 1998
52.230-3	Disclosure and Consistency of Cost Accounting Practices	Apr 1998
52.230-4	Consistency in Cost Accounting Practices	Aug 1992
52.230-6	Administration of Cost Accounting Standards	Nov 1999
52.232-1	Payments	Apr 1984
52.232-7	Payments under Time-and-Materials and Labor-Hour Contracts	Mar 2000
52.232-8	Discounts For Prompt Payment	May 1997
52.232-9	Limitation on Withholding of Payments	Apr 1984
52.232-11	Extras	Apr 1984
52.232-17	Interest	Jun 1996
52.232-18	Availability of Funds	Apr 1984
52.232-23	Assignment of Claims	Jan 1986
52.232-25	Prompt Payment	May 2001
52.232-33	Payment by Electronic Funds Transfer-Central Contractor Registration	May 1999
52.232-34	Payment by Electronic Funds Transfer-Other Than Central Contractor Registration	May 1999
52.233-1	Disputes	Dec 1998
52.233-3	Protest After Award	Aug 1996
52.237-2	Protection Of Government Buildings, Equipment, And Vegetation	Apr 1984
52.237-3	Continuity of Services	Jan 1991
52.239-1	Privacy or Security Safeguards	Aug 1996
52.242-1	Notice of Intent to Disallow Costs	Apr 1984
52.242-3	Penalties for Unallowable Costs	May 2001
52.242-4	Certification of Final Indirect Costs	Jan 1997
52.242-13	Bankruptcy	Jul 1995
52.243-1	Changes--Fixed-Price	Aug 1987
52.243-3	Changes-Time-and-Materials or Labor-Hours	Sept 2000
52.244-2	Subcontracts	Aug 1998
52.244-5	Competition In Subcontracting	Dec 1996
52.245-1	Property Records	Apr 1984
52.245-2	Government Property (Fixed-Price Contracts)	Dec 1989
52.245-5	Government Property (Cost-Reimbursement, Time-and-Material, or Labor-Hour Contracts)	Jan 1986
52.245-8	Liability For the Facilities	Jan 1997
52.245-19	Government Property Furnished “As Is”	Apr 1984

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52.246-6	Inspection -- Time-and-Material and Labor-Hour	May 2001
52.246-17	Warranty of Supplies of a Noncomplex Nature	May 2001
52.246-19	Warranty of Systems and Equipment under Performance Specifications or Design Criteria	May 2001
52.246-20	Warranty of Services --	May 2001
52.246-25	Limitation of Liability-Services	Feb 1997
52.247-63	Preference for U.S.-Flag Air Carriers	Jan 1997
52.248-1	Value Engineering	Feb 2000
52.249-2	Termination For Convenience Of The Government (Fixed-Price)	Sep 1996
52.249-8	Default (Fixed-Price Supply And Service)	Apr 1984
52.249-14	Excusable Delays	Apr 1984
52.251-1	Government Supply Sources	Apr 1984
52.253-1	Computer Generated Forms	Jan 1991

I.2 52.215-19 Notification of Ownership Changes. (Oct 1997)

(a) The Contractor shall make the following notifications in writing:

- (1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.
- (2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall—

- (1) Maintain current, accurate, and complete inventory records of assets and their costs;
- (2) Provide the ACO or designated representative ready access to the records upon request;
- (3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and
- (4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

(c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

I.3 52.216-18 Ordering (Oct 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities

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designated in the Schedule. Such orders may be issued from the effective date of award through expiration date of contract

- (b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.
- (c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

I.4 52.216-19 Order Limitations (Oct 1995)

- 1) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than **\$100** the Government is not obligated to purchase, nor is the Contractor obligated to furnish supplies or services under the contract.
- 2) Maximum order. The contractor is not obligated to honor:
 - a) Any order for a single item in excess of \$25 million.
 - b) Any order for a combination of items in excess of \$50 million.
 - c) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in subparagraph 2(a) or (b) of this section.
- 3) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR), the Government is not required to order a part of any one requirement from the contractor if that requirement exceeds the maximum order limitations in paragraph (2) of this section.
- 4) Notwithstanding paragraphs 2 and 3 of this section, the contractor shall honor any order exceeding the maximum order limitations in paragraph 2, unless that order (or orders) is returned to the ordering office within three (3) work days after issuance, with written notice stating the contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

I.5 52.216-22 Indefinite Quantity (Oct 1995)

- 1) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the contract. The quantities of supplies or services specified in the contract are estimates only and are not purchased by this contract.

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- 2) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering Limitation clause. The contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the contract up to and including the quantity designated in the contract as the “maximum.” The Government shall order at least the quantity of supplies or services designated in the contract as the “minimum.”
- 3) Except for any limitations on the quantities, in the Order Limitations clause or in the contract, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.
- 4) Any order issued during the effective period of this contract and not completed within that period shall be completed by the contractor within the time specified in the order. The contract shall govern the contractor’s and Government’s rights and obligations with respect to that order to the same extent as if the order were completed during the contract’s effective period; provided, that the contractor shall not be required to make any deliveries under this contract after the completion date specified in the task order.

I.6 52.217-9 Option To Extend The Term Of The Contract (Mar 2000)

- (a) The Government may extend the term of this contract by written notice to the Contractor within 30 days; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.
- (b) If the Government exercises this option, the extended contract shall be considered to include this option clause.
- (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed eight (8) years.

I.7 52.223-13 Certification of Toxic Chemical Release Reporting (Oct 2000)

- (a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.
- (b) By signing this offer, the offeror certifies that--
 - (1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic

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Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

- (2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: [*Check each block that is applicable.*]

____ (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

____ (ii) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

____ (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

____ (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

____ (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

I.8 Reserved

I.9 52.216-27 Single Or Multiple Awards (Oct 1995)

The Government may elect to award a single delivery order contract or task order contract or to award multiple delivery order contracts or task order contracts for the same or similar supplies or services to two or more sources under this solicitation.

I.10 52.219-12 Special 8(A) Subcontract Conditions (Feb 1990)

- (a) The Small Business Administration (SBA) has entered into Contract No. _____ [*insert number of contract*] with the _____ [*insert name of contracting agency*] to furnish the supplies or services as described therein. A copy of the contract is attached hereto and made a part hereof.
- (b) The _____ [*insert name of subcontractor*], hereafter referred to as the subcontractor, agrees and acknowledges as follows:

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- (1) That it will, for and on behalf of the SBA, fulfill and perform all of the requirements of Contract No. _____ [*insert number of contract*] for the consideration stated therein and that it has read and is familiar with each and every part of the contract.
 - (2) That the SBA has delegated responsibility, except for novation agreements and advance payments, for the administration of this subcontract to the _____ [*insert name of contracting agency*] with complete authority to take any action on behalf of the Government under the terms and conditions of this subcontract.
 - (3) That it will not subcontract the performance of any of the requirements of this subcontract to any lower tier subcontractor without the prior written approval of the SBA and the designated Contracting Officer of the _____ [*insert name of contracting agency*].
 - (4) That it will notify the _____ [*insert name of contracting agency*] Contracting Officer in writing immediately upon entering an agreement (either oral or written) to transfer all or part of its stock or other ownership interest to any other party.
- (c) Payments, including any progress payments under this subcontract, will be made directly to the subcontractor by the _____ [*insert name of contracting agency*].

I.11 52.219-17 Section 8(A) Award (Dec 1996)

- (a) By execution of a contract, the Small Business Administration (SBA) agrees to the following:
 - (1) To furnish the supplies or services set forth in the contract according to the specifications and the terms and conditions by subcontracting with the Offeror who has been determined an eligible concern pursuant to the provisions of section 8(a) of the Small Business Act, as amended (15 U.S.C. 637(a)).
 - (2) Except for novation agreements and advance payments, delegates to the _____ [*insert name of contracting activity*] the responsibility for administering the contract with complete authority to take any action on behalf of the Government under the terms and conditions of the contract; *provided*, however that the contracting agency shall give advance notice to the SBA before it issues a final notice terminating the right of the subcontractor to proceed with further performance, either in whole or in part, under the contract.
 - (3) That payments to be made under the contract will be made directly to the subcontractor by the contracting activity.
 - (4) To notify the _____ [*insert name of contracting agency*] Contracting Officer immediately upon notification by the subcontractor that the owner or owners upon whom 8(a) eligibility was based plan to relinquish ownership or control of the concern.

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- (5) That the subcontractor awarded a subcontract hereunder shall have the right of appeal from decisions of the cognizant Contracting Officer under the "Disputes" clause of the subcontract.
- (b) The offeror/subcontractor agrees and acknowledges that it will, for and on behalf of the SBA, fulfill and perform all of the requirements of the contract.
- (c) The offeror/subcontractor agrees that it will not subcontract the performance of any of the requirements of this subcontract to any lower tier subcontractor without the prior written approval of the SBA and the cognizant Contracting Officer of the _____ [*insert name of contracting agency*].

I.12 52.244-6 Subcontracts For Commercial Items (May 2001)

- (a) *Definitions.* As used in this clause--
 - "Commercial item" has the meaning contained in the clause at 52.202-1, Definitions.
 - "Subcontract" includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.
- (b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.
- (c) (1) The following clauses shall be flowed down to subcontracts for commercial items:
 - (i) 52.219-8, Utilization of Small Business Concerns (Oct 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.
 - (ii) 52.222-26, Equal Opportunity (Feb 1999) (E.O. 11246).
 - (iii) 52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (Apr 1998) (38 U.S.C. 4212(a)).
 - (iv) 52.222-36, Affirmative Action for Workers with Disabilities (Jun 1998) (29 U.S.C. 793).
 - (v) 52.247-64, Preference for Privately Owned U.S.-Flagged Commercial Vessels (Jun 2000) (46 U.S.C. Appx 1241) (flowdown not required for subcontracts awarded beginning May 1, 1996).

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- (2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.
- (d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

I.13 52.252-6 Authorized Deviations In Clauses (Apr 1984)

- (a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.
- (b) The use in this solicitation or contract of any GSAR (48 CFR Chapter) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

I.14 552.203-71 Restriction on Advertising (Sep 1999)

The Contractor shall not refer to this contract in commercial advertising or similar promotions in such a manner as to state or imply that the product or service provided is endorsed or preferred by the White House, the Executive Office of the President, or any other element of the Federal Government, or is considered by these entities to be superior to other products or services. Any advertisement by the Contractor, including price-off coupons, that refers to a military resale activity shall contain the following statement: "This advertisement is neither paid for nor sponsored, in whole or in part, by any element of the United States Government."

I.15 552.211-77 Packing List (Feb 1996)

- (a) A packing list or other suitable shipping document shall accompany each shipment and shall indicate: (1) Name and address of the consignor; (2) Name and complete address of the consignee; (3) Government order or requisition number; (4) Government bill of lading number covering the shipment (if any); and (5) Description of the material shipped, including item number, quantity, number of containers, and package number (if any).
- (b) When payment will be made by Government commercial credit card, in addition to the information in (a) above, the packing list or shipping document shall include: (1) Cardholder name and telephone number and (2) the term "Credit Card".

I.16 552.215-70 Examination Of Records By GSA (Feb 1996)

The contractor agrees that the Administrator of General Services or any duly authorized representatives shall, until the expiration of 3 years after final payment under this contract, or of the time periods for the particular records specified in Subpart 4.7 of the Federal Acquisition Regulation (48 CFR 4.7), whichever expires earlier, have access to

and the right to examine any books, documents, papers, and records of the contractor involving transactions related to this contract or compliance with any clauses thereunder. The contractor further agrees to include in all its subcontracts hereunder a provision to the effect that the subcontractor agrees that the Administrator of General Services or any authorized representatives shall, until the expiration of 3 years after final payment under the subcontract, or of the time periods for the particular records specified in Subpart 4.7 of the Federal Acquisition Regulation (48 CFR 4.7), whichever expires earlier, have access to and the right to examine any books, documents, papers, and records of such subcontractor involving transactions related to the subcontract or compliance with any clauses thereunder. The term "subcontract" as used in this clause excludes (a) purchase orders not exceeding \$100,000 and (b) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

I.17 552.223-70 Hazardous Substances (May 1989)

- (a) If the packaged items to be delivered under this contract are of a hazardous substance and ordinarily are intended or considered to be for use as a household item, this contract is subject to the Federal Hazardous Substances Act, as amended (15 U.S.C. 1261-1276), implementing regulations thereof (16 CFR Chapter II), and Federal Standard No. 123, Marking for Shipment (Civil Agencies), issue in effect on the date of this solicitation.
- (b) The packaged items to be delivered under this contract are subject to the preparation of shipping documents, the preparation of items for transportation, shipping container construction, package making, package labeling, when required, shipper's certification of compliance, and transport vehicle placarding in accordance with Parts 171 through 178 of 49 CFR and the Hazardous Materials Transportation Act.
- (c) The minimum packaging acceptable for packaging Department of Transportation regulated hazardous materials shall be those in 49 CFR 173.

I.18 552.223-72 Hazardous Material Information. (Sep 1999)

Offeror shall indicate for each national stock number (NSN) the following information:

<u>NSN</u>	<u>DOT Shipping Name</u>	<u>DOT Hazard Class</u>	<u>Required</u>
_____	_____	_____	Yes[]_No[]
_____	_____	_____	Yes[]_No[]
_____	_____	_____	Yes[]_No[]

I.19 552.232-70 Invoice Requirements (Sep 1999)

- (a) Invoices shall be submitted in an original only, unless otherwise specified, to the designated billing office specified in this contract or order.

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- (b) Invoices must include the Accounting Control Transaction (ACT) number provided below or on the order.

ACT Number (Contracting Officer insert number)

- (c) In addition to the requirements for a proper invoice specified in the Prompt Payment clause of this contract or order, the following information or documentation must be submitted with each invoice:

(Contracting Officer list additional requirements.)

I.20 552.232-71 Adjusting Payments (Sep 1999)

- (a) Under the Inspection of Services clause of this contract, payments may be adjusted if any services do not conform with contract requirements. The Contracting Officer or a designated representative will inform the Contractor, in writing, of the type and dollar amount of proposed deductions by the 10th workday of the month following the performance period for which the deductions are to be made.
- (b) The Contractor may, within 10 working days of receipt of the notification of the proposed deductions, present to the Contracting Officer specific reasons why any or all of the proposed deductions are not justified. Reasons must be solidly based and must provide specific facts that justify reconsideration and/or adjustment of the amount to be deducted. Failure to respond within the 10-day period will be interpreted to mean that the Contractor accepts the deductions proposed.
- (c) All or a portion of the final payment may be delayed or withheld until the Contracting Officer makes a final decision on the proposed deduction. If the Contracting Officer determines that any or all of the proposed deductions are warranted, the Contracting Officer shall so notify the Contractor, and adjust payments under the contract accordingly.

I.21 552.232-72 Final Payment (Sep 1999)

Before final payment is made, the Contractor shall furnish the Contracting Officer with a release of all claims against the Government relating to this contract, other than claims in stated amounts that are specifically excepted by the Contractor from the release. If the Contractor's claim to amounts payable under the contract has been assigned under the Assignment of Claims Act of 1940, as amended (31 U.S.C. 3727, 41 U.S.C. 15), a release may also be required of the assignee.

I.22 552.252-6 Authorized Deviations In Clauses. (Sep 1999)

- (a) Deviations to FAR clauses.

(1) This solicitation or contract indicates any authorized deviation to a Federal Acquisition Regulation (48 CFR Chapter 1) clause by the addition of

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"(DEVIATION)" after the date of the clause, if the clause is not published in the General Services Administration Acquisition Regulation (48 CFR Chapter 5).

(2) This solicitation indicates any authorized deviation to a Federal Acquisition Regulation (FAR) clause that is published in the General Services Administration Acquisition Regulation by the addition of "(DEVIATION (FAR clause no.))" after the date of the clause.

(b) Deviations to GSAR clauses. This solicitation indicates any authorized deviation to a General Services Administration Acquisition Regulation clause by the addition of "(DEVIATION)" after the date of the clause.

(d) "Substantially the same as" clauses. Changes in wording of clauses prescribed for use on a "substantially the same as" basis are not considered deviations.

I.23 552.232-77 Payment By Government-wide Commercial Purchase Card (Mar 2000)

(a) Definitions. "Government-wide commercial purchase card" means a uniquely numbered credit card issued by a contractor under GSA's Government-wide Contract for Fleet, Travel, and Purchase Card Services to named individual Government employees or entities to pay for official Government purchases.

"Oral order" means an order placed orally either in person or by telephone.

(b) At the option of the Government and if agreeable to the Contractor, payments of _____* or less for oral or written orders may be made using the Government-wide commercial purchase card.

(c) The Contractor shall not process a transaction for payment through the credit card clearinghouse until the purchased supplies have been shipped or services performed. Unless the cardholder requests correction or replacement of a defective or faulty item under other contract requirements, the Contractor must immediately credit a cardholder's account for items returned as defective or faulty.

(d) Payments made using the Government-wide commercial purchase card are not eligible for any negotiated prompt payment discount. Payment made using a Government debit card will receive the applicable prompt payment discount.

Section J: List of Attachments

J.1 Reserved

J.2 Reserved

J.3 Reserved

J.4 Reserved

J.5 Reserved

J.6 Reserved

J.7 Format and Content of Connections Administrative Reports

The suggested format and content of required Connections administrative reports are specified in this section.

J.7.1 Delivery Order Status Report

A suggested format for the Delivery Order Status Report for the DAO follows. This report has three parts:

1. Part I - Information on the Contractor and the Contract
2. Part II – Summaries
 - a. Description of the requirements
 - b. Summary of accomplishments
 - c. Deliverables
 - d. Current and anticipated problems
 - e. Activities for next reporting period
 - f. Status of trouble reports
3. Part III – Staffing
 - a. Contractor
 - b. Subcontractors

A rolled-up version of this same report shall be prepared for the ACO.

Suggested Format of Delivery Order Status Report

Part I. Information on Contract and Contractor

Contractor Name: _____ Contract Number: _____
 Report for the Month of: _____ Date of this Report: _____

Task Order #	Reporting Period	GSA Contract #	Client Representative

Place of Performance	Contractor Task Leader	Task Leader Phone Number and E-mail Address

Part II. SUMMARIES

A. Brief description of requirements; delivery description; and Section C functional areas (i.e., Section C contract reference) under which the work was performed

Description of Requirements	Delivery Description	Section C Functional Area

B. Summary of Accomplishments and Significant Events

Accomplishment or Significant Event	Summary

C. Deliverables Submitted

D. Current or Anticipated Problems

Current or Anticipated Problem	Summary of Problem

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E. Summary of Activity Planned for Next Reporting Period

Activity	Summary of Plans

F. Status of all Trouble Reports (Including Those Still Open)

TR #	Description	Status (Open/Closed)	Date Opened	Date Closed

Part III. STAFFING

A. Contractor Staffing						
Employee Name	Skill Level*	Date Started	Rate	Hours Worked	Overtime Hours	Offsite Hours Onsite hours
B. Subcontractor Staffing						
Employee Name	Firm Name	Firm Address	Bus. Size	Contract Number	POC & phone number	Government TO #

* Define the Skill Level using the terminology of Tables C.4-1 through C.4-3 of Section C.4.2 of the contract. For example, a Quality Assurance Engineer with a bachelor’s degree and seven years of experience would have a Skill Level of (QA, 3, 3).

VACANCIES (Reported to ACO Only)

Positions on Hold	True Vacancies	Total Vacancies
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Task	Client	Dollar Value
------	--------	--------------

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Skill Level*	# Authorized	Days Vacant	Reason for Vacancy	Expected Fill Date	Actions Taken
--------------	--------------	-------------	--------------------	--------------------	---------------

Subcontractors

Positions on Hold	True Vacancies	Total Vacancies
-------------------	----------------	-----------------

Task	Client	Dollar Value
------	--------	--------------

Skill Level*	# Authorized	Days Vacant	Reason for Vacancy	Expected Fill Date	Actions Taken
--------------	--------------	-------------	--------------------	--------------------	---------------

* Define the Skill Level using the terminology of Tables C.4-1 through C.4-3 of Section C.4.2 of the contract. For example, a Quality Assurance Engineer with a bachelor’s degree and seven years of experience would have a Skill Level of (QA, 3, 3).

J.7.2 Financial Status Report

A suggested format for the Financial Status Report for the DAOs and ACO follows. The report format for DAOs has four parts; there is a fifth part, the Associated Government Fees Summary Report, for the ACO only.

1. Part I – Contractor Status
2. Part II –Task Order Status
3. Part III – CLINs and ODCs Ordered
4. Part IV - Dollar Activity Report
5. Part V – Associated Government Fees Summary Report (ACO Only)

Suggested Format of the Financial Status Report

Part I. Contractor Status

Contractor Name: _____ Contract Number: _____
 Report for the reporting period of: _____ Date of this Report: _____
 Contractor officer who wrote report: _____
 Title, telephone number, reporting period: _____
 Amount billed during reporting period: _____
 Amount collected during reporting period: _____

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		\$ x,xxx.xx	\$ x,xxx.xx	\$ x,xxx.xx	\$ x,xxx.xx	
	Subtotal by Location (Agency)	\$ x,xxx.xx				
		\$ x,xxx.xx	\$ x,xxx.xx	\$ x,xxx.xx	\$ x,xxx.xx	
	Subtotal by Location (Agency)	\$ x,xxx.xx				
	TOTAL	\$ x,xxx.xx				

* The BAC is the Billing Account Code.

Previous Sales to Date	\$x,xxx,xxx.xx
Current Contract to Date	\$x,xxx,xxx.xx
Total Equip Sales to Date	\$ xxx,xxx.xx
Total Service Sales to Date	\$ xxx,xxx.xx
Total Maintenance Sales to Date	\$ xxx,xxx.xx
Total AGFs to Date (ACO Only)	\$ xxx,xxx.xx

NOTES:

- 1) This is a sample report, with a format that is recommended for use by the Contractor.
- 2) The locations and amounts listed are provided as examples only.
- 3) The agency address is the location where the equipment or service was provided, not the billing location.
- 4) The use of "x" preceded by the dollar sign (\$) represents numerical figures in this example

Part V. Associated Government Fees Summary Report (ACO only)

Contractor Name: _____ Contract Number: _____
 Report for the Month of: _____ Date of this Report: _____
 Official Who Prepared Report: _____

Agency	Billing Account Code	Amount Billed	Amount Collected	Associated Government Fees
		\$ x,xxx.xx	\$ x,xxx.xx	\$ x,xxx.xx
	Subtotal by Agency	\$ x,xxx.xx	\$ x,xxx.xx	\$ x,xxx.xx
		\$ x,xxx.xx	\$ x,xxx.xx	\$ x,xxx.xx
	Subtotal by Agency	\$ x,xxx.xx	\$ x,xxx.xx	\$ x,xxx.xx
	TOTAL	\$ x,xxx.xx	\$ x,xxx.xx	\$ x,xxx.xx

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J.7.3 Contractor Status and Marketing Report

A suggested format for the Contractor Status and Marketing Report for the DAOs and ACO follows. Each report has two parts:

1. Part I – Contractor Status
2. Part II – Marketing Report

Suggested Format of Contractor Status and Marketing Report

Part I. Contractor Status

Contractor Name: _____ Contract Number: _____
 Report for the Month of: _____ Date of this Report: _____

1. GENERAL

Active Task Orders:

Location	Task Order #	Task Order Description

Total Number of Task Orders: _____

Amount Billed During Reporting Interval: _____

Location	Amount

Total Amount Billed: _____

Part II. MARKETING REPORT

Marketing Report (DAOs and ACOs)

Date of Activity	Customers Contacted Name, title	Agency, address, phone number	Contractor Personnel Presenting	Current Revenue

Marketing Report (ACO Only)

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In addition to the above information, list by customer the revenue in this reporting period, revenue projected for the same period one year hence, and plan for getting there.

J.8 Resume Format

1. NAME
ADDRESS (home)
TELEPHONE
2. EDUCATION (include relevant training and certification)
3. SUMMARY OF QUALIFICATIONS (Experience must be in sufficient detail to be evaluated. Significant experience is that specialized experience which includes direct, participatory involvement of sufficient duration (not less than six (6) months) to achieve continuing expertise; and of a level of responsibility appropriate to the skill level for which the resume is offered.)
4. CHRONOLOGICAL EMPLOYMENT HISTORY
5. SECURITY CLEARANCES
6. CERTIFICATION IF INDIVIDUAL IS CURRENT OR CONTINGENT EMPLOYEE
(If contingency hire, provide signed agreement.)
7. PROPOSED SKILL LEVEL AND CONTRACT HOURLY RATE
8. SIGNATURE AND DATE OF EMPLOYEE
9. SIGNATURE AND DATE OF SUPERVISOR

J.9 GSA Guide Specifications PBX 01456

Section 01546 - Safety and Health

Part 1 -- General

1.01 Applicable Publications:

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

A. Code of Federal Regulations

1. OSHA General Industry Safety and Health Standards (29 CFR 1910), Publication V2206; OSHA Construction Industry Standards (29 CFR 1926). One source of these regulations is OSHA Publication 2207, which includes a combination of both Parts 1910 and 1926 as they relate to construction safety and health. It is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402.
2. National Emission Standards for Hazardous Air Pollutants (40 CFR, Part 61).

B. Federal Standards

1.313A Material Safety Data Sheets, Preparation and Submission Of.

1.02 Work Covered By This Section:

This section is applicable to all work covered by the contract awarded under this contract.

1.03 Definition Of Hazardous Materials:

Refer to hazardous and toxic materials/substances included in Subpart H and Z of 29 CFR 1910; and to others as additionally defined in Fed. Std. 313. Those most commonly encountered include asbestos, polychlorinated biphenyls (PCB's), explosives, and radioactive material, but may include others. The most likely products to contain asbestos are sprayed-on fireproofing, insulation, boiler lagging, and pipe covering.

1.04 Quality Assurance:

A. Safety Meeting:

Representatives of the Contractor shall meet with the Contracting Officer and his/her representative(s) prior to the start of work under this contract for the purpose of reviewing the Contractor's safety and health programs and discussing implementation of all safety and health provisions pertinent to the work to be performed under the contract. The Contractor shall be prepared to discuss, in detail, the measures he/she intends to take in order to control any unsafe or unhealthy conditions associated with the work to be performed under the contract. If directed by

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the Contracting Officer, this meeting may be held in conjunction with other meetings which are scheduled to take place prior to start of work under this contract. The level of detail for the safety meeting is dependent upon the nature of the work and the potential inherent hazards. The Contractor's principal on-site representative(s), the general superintendent and his/her safety representative shall attend this meeting.

B. Compliance with Regulations:

All work, including contact with and handling of hazardous materials, the disturbance or dismantling of structures containing hazardous materials and/or the disposal of hazardous materials shall comply with the applicable requirements of 29 CFR 1926/1910. Work involving the disturbance, dismantling of asbestos or asbestos containing materials, the demolition of structures containing asbestos, and/or the disposal and removal of asbestos, shall also comply with the requirements of 40 CFR, Part 61, Subparts A and M. All work shall comply with applicable state and municipal safety and health requirements. When there is a conflict between applicable regulations, the most stringent shall apply.

C. Contractor Responsibility:

The Contractor shall assume full responsibility and liability for compliance with all applicable regulations pertaining to the health and safety of personnel during the execution of work, and shall hold the Government harmless for any action on his/her part or that of his/her employees or subcontractors, which results in illness, injury or death.

1.05 Submittals:

A. Accident Reporting:

A copy of each accident report, which the Contractor or subcontractors submit to their insurance carriers, shall be forwarded to the Contracting Officer as soon as possible, but in no event later than seven (7) days after the day the accident occurred.

B. Permits:

If hazardous materials are disposed of off site, submit copies of permits from applicable Federal, state, or municipal authorities.

C. Other Submittals:

Other submittals may be required. One such submittal may be site specific plans of action for handling hazardous materials, prepared for each affected installation site. The site-specific plans will be prepared as an update to the overall plan contained in the contractor's proposal and will include information relative to:

- Number, type, and experience of employees to be used for the work;
- Description of how applicable safety and health regulations and standards are to be met;
- Type of protective equipment and work procedures to be used;

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- Emergency procedures for accidental spills or exposures;
- Procedures for disposing of or storing the toxic/hazardous materials;
- Identification of possible hazards, problems, and proposed control mechanisms;
- Protection of public or others not related to the operation;
- Interfacing and control of subcontractors, if any;
- Identification of any required analyses, test demonstrations, and validation requirements; and
- Method of certification for compliance.

Part 2 -- Products

2.01 -- Materials and Equipment:

Special facilities, devices, equipment, clothing, and similar items used by the Contractor in the execution of work shall comply with the applicable regulations.

2.02 -- Hazardous Materials:

The Contractor shall bring to the attention of the Contracting Officer any material suspected of being hazardous which he/she encounters during execution of work. Necessary actions will be determined by the Contracting Officer, who will stop work if, in his/her opinion, an unsafe condition exists.

Part 3 -- Execution

3.01 -- Stop Work Orders:

When the Contractor or his/her subcontractors are notified by the Contracting Officer or the Contracting Officer's Technical Representative of any noncompliance with the provisions of the contract and the action(s) to be taken, the Contractor shall immediately, if so directed, or within 48 hours after receipt of a notice of violation correct the unsafe or unhealthy condition. If the Contractor fails to comply promptly, all any part of the work being performed may be stopped by the Contracting Officer through issuance of a Stop Work Order. When, in the opinion of the Contracting Officer, satisfactory corrective action has been taken to correct the unsafe and unhealthy condition, a start order will be given immediately. The Contractor shall not be allowed any extension of time or compensation for damages by reason of or in connection with such work stoppage.

3.02 -- Protection:

The Contractor shall take all necessary precautions to prevent injury to the public, building occupants, or damage to property of others. For the purposes of this contract, the public and

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building occupants shall include all persons not employed by the Contractor or a subcontractor working under the Contractor's direction.

Storing, positioning or use of equipment, tools, materials, scraps, and trash in a manner likely to present a hazard to the public or building occupants by its accidental shifting, ignition, or other hazardous qualities is prohibited.

No corridor, aisle, door, or exit shall be obstructed or used in such a manner as to encroach upon routes of ingress or egress utilized by the public or building occupants, or to present unsafe or unhealthy condition to the public or building occupants.

Work shall not be performed in any area occupied by the public or Federal employees unless specifically permitted by the contract or the Contracting Officer and unless adequate steps are taken for the protection of the public or Federal employees.

Whenever practicable, the work area shall be fenced, barricaded, or otherwise blocked off from the public or building occupants to prevent unauthorized entry into the work area.

When the nature of the work prevents isolation of the work area and the public and building occupants may be in or passing through, under or over, the work area, alternate precautions such as the posting of signs, the use of signal persons, the erection of barricades or similar protection around particularly hazardous operations shall be used as appropriate.

When work is to be performed over a public thoroughfare such as a sidewalk, lobby, or corridor, the thoroughfare shall be closed, if possible, or other precautions taken such as the installation of screens or barricades. When the exposure to heavy falling objects exists, as during the erection of building walls or during demolition, special protection of the type detailed in 29 CFR 1910/1926 shall be provided.

Fences and barricades shall be removed upon completion of the project, in accordance with local ordinance and to the satisfaction of the Contracting Officer or his/her representative.

J.10 Reserved

J.11 Acronyms

The acronyms or abbreviations used in this Request for Proposals (RFP) are defined in this section.

Acronym	Term
AALi	ATM Adaptation Layer Type i, i = 1, 2, 3, 4, 5
ABR	Available Bit Rate
ACK	ACKnowledge
ACO	Administrative Contracting Officer
ACT	Accounting Control Transaction
ADM	Add/Drop Multiplexer

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Acronym	Term
ADO	ActiveX Data Objects
ANSI	American National Standards Institute
AES	Advanced Encryption Standard
ARA	Apple Remote Access
ARO	After Receipt of Order
ATM	Asynchronous Transfer Mode
AUI	Autonomous Unit Interface
AWG	American Wire Gauge
BAC	Billing Account Code
BER	Bit Error Rate
BICSI	Building Industry Consulting Service International
BITS	Building Integrated Timing Supply
BRI	Basic Rate Integrated Services Digital Network
BTU	British Thermal Unit
CA	Connection Approval
CFR	Code of Federal Regulations
CHAP	Challenge-Handshake Authentication Protocol
CONOPS	Concept of Operations
CONUS	CONTiguous United States
CIA	Computer Industry Association
COMSEC	COMmunications SECurity
COTS	Commercial Off-the-Shelf
CPE	Customer Premises Equipment
CPU	Central Processor Unit
CSLIP	Compressed Serial Line Interface Protocol
CSR	Contract Status Report
CSU	Channel Service Unit
CTI	Computer Telephone Integration
D4	A fourth generation T1 channel bank
DAO	Designated Agency Official
DCS	Digital Cross Connect
DES	Data Encryption Standard
DLC	Digital Loop Carrier
DMPB	Digital Multipoint Bridging
DNS	Domain Names Server
DO	Delivery Order
DOR	Delivery Order Request
DS1	Digital Signal level 1
DS3	Digital Signal level 3
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexer
DSU	Digital Service Unit
DTMF	Dual Tone Multi Frequency
DVI-D	Digital Video Interaction-D

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Acronym	Term
EFT	Electronic Funds Transfer
EIA	Electronic Industries Association
ENQ	ENquire
ESF	Extended Super Frame
FAR	Federal Acquisition Regulation
FDDI	Fiber Distributed Data Interface
FFP	Firm, Fixed Price
FIPS	Federal Information Processing Standard
FRAD	Frame Relay Access Device
FTP	File Transfer Protocol
FTR	Federal Telecommunications Recommendations or Federal Travel Regulations
FTS	Federal Technology Service
FUNI	Frame-based User-to-Network Interface
Gbps	Gigabits per second
GHz	Gigahertz
GFE	Government Furnished Equipment
GigE	Gigabit Ethernet
GMC	Government Management Center
GSA	General Services Administration
HNA	Host Nation Approval
HSSI	High Speed Serial Interface
HTML	HyperText Markup Language
HTTP	HyperText Transfer Protocol
HVAC	Heating, Ventilation, and Air Conditioning
IAD	Integrated Access Device
ICA	International Communications Association
ICEA	Insulated Cable Engineers Association
ID/IQ	Indefinite Delivery/Indefinite Quantity
IEEE	Institute of Electrical and Electronic Engineers
IETF	Internet Engineering Task Force
IMPAC	International Merchant Purchase Authorization Card
IP	Internet Protocol
IPX	Internet Packet Exchange
ISDN	Integrated Services Digital Network
IT	Information Technology
ITU	International Telecommunications Union
Kbps	Kilobits per second
Kerberos	A security system for client/server computing
KTS	Key Telephone System
L2TP	Layer 2 Tunneling Protocol
LAN	Local Area Network
LAP	Laminated Aluminum Polyethylene
LAT	Local Area Transport
LMDS	Local Multipoint Distribution System
MAC	Media Access Control
MacOS	Apple McIntosh Operating System
MAN	Metropolitan Area Network
MB	Megabyte

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Acronym	Term
Mbps	Megabits per second
MCU	Multipoint Control Unit
MFS	Monthly Financial Summary
MPOA	Multiple Protocol encapsulation Over ATM
MPOP	Minimum Point of Penetration
MTBF	Mean Time Between Failures
MTS	Monthly Technical Summary
MTTR	Mean Time To Repair
NAICS	North American Industrial Classification System
NCS	National Communications System
NEC	National Electric Code
NIC	Network Interface Card
NIUF	North American ISDN Users' Forum
NLT	No Later Than
NOS	Network Operating System
nrtVBR	non-real time Variable Bit Rate
NTSC	National Television Standards Committee
OC	Optical Carrier
OCONUS	Other than the CONTiguous United States
OCNUS	Abbreviation of OCONUS
ODC	Other Direct Cost
ODBC	Open Database Connectivity
OEM	Original Equipment Manufacturer
OLE-DB	Object Linking and Embedding Database
OSHA	Occupational Safety and Health Administration

Connections Contract

Acronym	Term
OSPF	Open Shortest Path First
OSS	Operations Support System
PAP	Packet level Procedure
PBX	Private Branch eXchange
PC	Personal Computer
PCM	Pulse Code Modulation
PCO	Procuring Contracting Officer
PNNI	Private Network to Network Interface
POC	Point of Contact
POV	Privately Owned Vehicle
PPP	Point-to-Point Protocol
PRI	Primary Rate Integrated Switched Digital Network (ISDN)
PSN	Public Switched Network
PSTN	Public Switched Telephone Network
RADIUS	Remote Authentication Dial In User Service
REA	Rural Electrification Association
RFC	Request for Comments
RIP	Routing Information Protocol
RJ	Registered Jack
RMBCS	Rocky Mountain Bank Card Systems
rtVBR	Real-time Variable Bit Rate
SIC	Standard Industrial Classification
SIP	Session Initiation Protocol
SLA	Service Level Agreement
SLIP	Serial Line Interface Protocol
SMDI	Station Message Desk Interface
SMDS	Switched Multimegabit Data Service
SMTP	Simple Mail Transfer Protocol
SNA	Systems Network Architecture
SNMP	Simple Network Management Protocol
SOFA	Status of Forces Agreements
SONET	Synchronous Optical NETwork
SOW	Statement of Work
SRDC	Sub-Rate Data Cross-Connect
SSL	Secure Sockets Layer
SVGA	Super Video Graphics Array
T1	A digital transmission link with a capacity of 1.544 Mbps
TACACS	Centralized mechanism allowing access to UNIX user databases such as Kerberos

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Acronym	Term
TCP	Transmission Control Protocol
TE&CM	Telecommunications Engineering and Construction Manual
TELIS	Telecommunications Integrator Services
TIA	Telecommunications Industry Association
TOPS	Telecommunications Ordering and Pricing System
TOR	Task Order Request
TSB	Technical Systems Bulletin
TTY	Teletype
UBR	Unspecified Bit Rate
UMS	Unified Messaging System
UNI	User-to-Network Interface
U-PCS	Unlicensed Personal Communication Service
UPS	Uninterrupted Power Supply
UPSR	Unidirectional Path Switch Ring
U.S.	United States
UTP	Unshielded Twisted Pair
VESA	Video Electronics Standards Association
VGA	Video Graphics Array
VoIP	Voice over Internet Protocol
VLAN	Virtual Local Area Network
VPC	Volts Per Cell
WAN	Wide Area Network
XGA	Extended Graphics Array
XML	Extensible Markup Language

J.12 Glossary of Terms

The following Glossary contains the most of the terms used in the Connections RFP. If there is any doubt about the definition of a term in the context of this contract, the Administrative Contracting Officer may be contacted to provide clarification.

Term	Definition
Account code	A code that identifies the caller so that the cost of the call can be billed to the appropriate party.
Administrative Contracting Officer	The Administrative Contracting Officer (ACO) is responsible for administering the contract after contract award.
Aerial Cable	A communications cable installed on a utility pole or similar overhead structure.
Agency	A term used to identify all federal agencies, authorized federal contractors, agency-sponsored universities and laboratories, and, when authorized by law or regulation, state, local, and tribal Governments. See also "customer."
Alternate Route Selection	Same as Automatic Route Selection
Analog	In telephone transmission, the signal being transmitted—voice, video, or image—is "similar to" the original. In telecommunications, analog means telephone transmission and/or a switch which is not digital. A transmission mode in which information is encoded on a carrier wave by means of a continuous variable current or voltage level. Analog signals transmitted across long distances require amplifiers to boost the signal level to compensate for signal loss associated with resistance, noise, radiation, and interference. Compare with DIGITAL.
Asynchronous transmission	Data transmission in which the instant that each character or block of characters starts is arbitrary. A form of discontinuous data transmission that uses start and stop bits to signify the beginning and end of characters. Compare with SYNCHRONOUSTRANSMISSION.
Authorization Code	A code that, once entered, can permit the user to gain access to a system or service.
Automatic Call Distribution (ACD)	A service feature that provides for automatically spreading the incoming traffic to assigned stations. If the station is busy, the call will be placed on hold and a recording will notify the calling party of ensuing procedures.
Automatic Call Back	Allows a user to place a call back on a busy line. When the called station goes on-hook, the originating station is rung and, when answered, the original call is automatically placed.
Automatic Route Selection (ARS)	A process for routing calls automatically, based on the area code (NPA) and exchange code (NXX) of the called number. A service feature that permits the system to select automatically the most economical circuit available to use on outgoing calls. Prefixes can be tailored to routes. It is the same as Alternate Route Selection.
Availability	<p>The proportion of total time that the service was available for use during the reporting period, which is usually one month. The operational availability is defined as follows:</p> $\text{Availability} = \frac{\text{Total Uptime} \times 100}{\text{Total Uptime} + \text{Total Downtime}}$ <p>Total uptime is the total amount of time the service is available within the reporting period. Total downtime is the total amount of time that the service is unavailable. Total downtime includes scheduled maintenance downtime if the service is unavailable for use.</p>
B	Byte - a sequence of eight adjacent binary digits usually treated as a unit.
b/s	Bits per second

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Term	Definition
Bandwidth	(a) The bandwidth of a device is the difference between the limiting frequencies within which performance with respect to some characteristic falls. (b) The difference between the limiting frequencies of a continuous frequency band.
Basic rate	The transmission speed supported by the basic interface structure of an ISDN system that is composed of two B (64 kb/s) and one D (16 kb/s) channels, as defined in CCITT I-412.
Billing Account Code (BAC)	A three-digit number that is assigned by the Government to uniquely identify the agency cost center on the order and the invoice. An accounting numbering system that identifies a user Agency for the purpose of billing that Agency for the use of Government provided telecommunications facilities.
Bill	A due and payable itemized list of goods and services from a contractor, which states quantities, prices, charges, and other supporting data needed to verify these charges.
Billing	The process of preparing and forwarding a list of charges to the Government for services rendered by the contractor.
Binary digit (bit)	The binary notation of either of the characters 0 or 1.
Bit (b)	Binary digit. A term used to define the digits (1 or 0) that are used in computer or digital transmission.
Bit Rate	The speed at which bits are transmitted. Usually expressed in bits per second (bps).
Blocking	The process of denying access to, or use of, a facility, system, or component.
Blocking caller-paid information phone numbers	The capability to block caller-paid calls from a station to an "information" number or Directory Assistance (e.g., 411 or 202-555-1212).
Blocking Dialed Carrier Identification Code	Provides the capability to block the attempted change from the pre-subscribed carrier on a per call basis.
Blocking of selected numbers	The capability to block calls incoming from pre-determined numbers.
BRI (Basic Rate Interface)	Connects customer premises equipment to the ISDN network utilizing two (2) 64 Kbps (B) channels and one (1) 64 Kbps signaling (D) channel.
Buried Cable	A communications cable installed under the surface of the ground in such a manner that it cannot be removed without disturbing the soil.
Busy Signal	Audible tone and/or flashing signals which indicates: 1) That the called number is busy (60 interruptions per minute, IPM); 2) That all voice paths are temporarily unavailable (120 IPM).
Byte	A sequence of eight adjacent binary digits usually treated as a unit.
Cable	Any communications channel having a bandwidth greater than a voice-grade telecommunications channel. An assembly of one or more wire conductors, usually within an enveloping protective sheath.
Cable Terminal	A structure adapted to be associated with a cable by means of which electric connections are made available for any predetermined group of cable conductors in such a manner as to permit their individual selection and extension by conductor outside of the cable.
Call	Any demand to set up a connection. A unit of traffic measurement.
Call blocking	The capability to block unwanted incoming calls based on user-specified numbers.
Call consultation	A feature that allows a user to alternate between a party on hold and an existing conversation.
Call Center	A central point for placing and receiving calls via telephone, e-mail, the Internet, or other means that are related to the operations and maintenance of the customer's telecommunications infrastructure. For purposes of this contract, call centers are synonymous with "contact centers."
Call forward - Busy	A feature that permits calls attempting to terminate to a busy station line to be redirected to a predetermined line when the called station is in use. A service feature that provides for an incoming call to be automatically routed to a predetermined telephone number when the called number is busy (Call Forwarding Limited to be able to access internal facilities.).

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Term	Definition
Call forward - Don't Answer	A feature that provides for forwarding of incoming calls to a predetermined line when the called station line does not answer within a prescribed time. A service feature that provides for, following a predetermined number of rings, incoming calls to be automatically routed to a predetermined telephone number (Call Forwarding Limited to be able to access internal facilities.).
Call forward - variable	A feature that allows a user to choose to reroute incoming calls to another specified telephone number. A service feature that provides for a call to be rerouted automatically to a preassigned second number if the initial call forwarding termination is busy or does not answer following a predetermined number of rings.
Call forwarding - off-net	A feature that allows all calls destined to a station to be routed to another off-net station, designated during activation, regardless of the busy or idle state of the called station. This feature can be activated or canceled by the station user or by the attendant.
Call hold	A feature that allows a station user to "hold" any call in progress by flashing and then dialing a "hold" code, thus freeing the line for the purpose of originating another call or returning to a previously held call. A service feature that provides for an existing call to be held while placing a second call and then returning to the original call.
Call hunting	The capability to route incoming calls through a series of stations. If the first station is busy, the calls will be routed to the second station in the series, and so on. The movement of a call as it progresses through a group of lines. Typically, the call will try to be connected on the first line of the group; if that line is busy it will try the second line and then the third, etc.
Call Identification	A service feature that provides intra-system calling party identification to a station equipped with an identification display.
Call pickup	A feature that allows a station user to answer any calls directed to another station line within his own preset pickup group by dialing a pickup code from an idle or busy station. If more than one station line in the pickup group is ringing, the individual call to be answered will be selected by the system. A service feature that provides a station the capability of answering an incoming call directed to another station.
Call transfer	A feature that allows a station user to transfer any call in progress to another station within the same system without the assistance of the attendant. A service feature that provides a station the capability to transfer any call to another station in the system.
Call waiting	A feature that allows a call to a busy station line to be held waiting while a tone signal is directed towards the busy station user. (Only the called station user hears this tone.) A service feature that allows an incoming call to a busy station to be automatically placed on hold and provides a tone to the busy station indicating that another incoming call is camped on the line.
Caller ID	A basic capability that provides the calling number to the terminating station.
Caller or calling party	A person, program, or item of equipment that originates a call.
Calling number suppression	A feature that provides the capability to the originating user to block the station number from being passed to the terminating station.
Cancel	A type of order that removes items from service and terminates billing before the items have been accepted. Compare with "disconnect."
Centrex	A Central Office Exchange - service that provides, from a telephone company central office switch or a functionally equivalent switch, basic capabilities and features comparable to those provided by a PBX. A service for multi-customers with stations that provides station-to-station dialing, listed directory number for each user, direct inward dialing to a particular station, station identification on outgoing calls and other features similar to an on-premise PBX but whose switching functions are performed in a central office.

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Term	Definition
Channel	A connection between the initiating and terminating nodes of a circuit. A path along which signals can be sent; e.g., data channel, output channel. A path for digital/analog transmission between two or more points. Also called a circuit facility, line, link, or path.
Circuit	(1) Electronic path between two or more points/ channel; (2) Number of conductors connected together for the purpose of carrying an electrical current; (3) Connected assemblage of electrical components such as resistors, capacitors, inductors, relays, etc. having desired electrical characteristics.
Class of Service (COS)	A designation assigned to describe the service treatment and privileges given to a particular terminal. The categorization of telephone stations according to specific types of telephone usage. See CLASSMARK.
Classmark	Designators used to describe the service privileges and restrictions for lines accessing a switch e.g., precedence level, conference privilege, security level, zone restriction. Also referred to as Class of Service.
CLIN	A Contract Line Item Number (CLIN) is a service, feature, or item of equipment for which a price has previously been established in Section B of the contract. Contrast with items priced as “ODCs” or “Other Direct Costs”.
Codec	An assembly consisting of a coder and a decoder in the same equipment used to convert analog signals to a digital format for transmission over a digital communication channel and for reconvertng the quasi-digital signal to a analog signal. Contrast with modem.
Compatibility	A property of systems that allows the exchange of necessary information directly and in usable form. <i>Note:</i> Implies use of identical or compatible protocols.
Conference calling	A feature that allows a station user to establish a multiparty conference connection.
Confidentiality	The concept of holding sensitive data in confidence, limited to an appropriate set of individuals or organizations.
Conflicts of Interest	“Conflicts of interest” means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the Government, or the person’s objectivity in performing the contract work is or might be otherwise impaired.
Contracting Officer	The Contracting Officer is responsible for administering the contract. It is a generic term for “Administrative Contracting Officer” and “Procuring Contracting Officer.”
CONUS	Contiguous United States or the “lower 48”
Customer	The term “customer” includes all Federal agencies, authorized Federal contractors, and agency-sponsored universities and laboratories authorized by law or regulation to acquire equipment and services using a Federal contract.
Customer-Premise Equipment (CPE)	Term applied to equipment owned by the customer from vendors other than the Contractor.
Customized Group Dialing Plan	A service functionality that allows the dialing plan to be customized for a defined group of stations within the system.
Data	The representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automatic means.
Data Call Setup	Provides three methods to set up a data call: 1) data terminal (keyboard) dialing; 2) voice terminal dialing; and 3) dedicated line.
Data Hot Line	The data hotline presents a standby line that would be available in the event of a failure of an existing data line for an immediate switchover.
Data line privacy	A feature that protects analog data calls from being interrupted by any of the system’s overriding or ringing features.
Data Terminal Equipment (DTE)	Digital end instruments that convert the user information into data signals for transmission or reconvert the received data signals into user information.

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Term	Definition
Decibel (dB)	A logarithmic measure of the ratio between two electronic power sources.
Delay	The interval of time between origination and receipt of a signal.
Delivery Order	A delivery order is an order for supplies placed against an established contractor or with Government sources. Contrast with task order.
Demarcation point	The point where the service provider brings in the wiring that connects to the customer's telecommunications infrastructure.
Designated Agency Official	The Designated Agency Official (DAO) is responsible for ordering and accepting Connections equipment and services on behalf of the agency.
Dial Tone	Tone used to indicate to the calling party that the telephone switching equipment is ready to receive dial or tone pulses.
Dial Tone Denial	Enables critical personnel to make outgoing calls during conditions of severe system overload.
Digit	One of the symbols 0, 1 to 9.
Digit display	A feature that provides the capability of displaying digits at the station.
Digital	A transmission mode in which information is encoded by means of voltage of current levels that exist in discrete states. Long distance digital transmissions require the use of repeaters to regenerate data signals as they weaken due to signal loss associated with resistance, radiation, and interference.
Digital data	Data represented by discrete values or conditions, as opposed to analog data.
Digital form	A discrete representation of a quantized value of a variable.
Digital format	The voice or data signals represented by discrete values or conditions.
Digital Signal 0 (DS0)	A digital signal rate of 64 kb/s. The worldwide standard speed for digitizing one voice conversation using Pulse Code Modulation (PCM).
Direct Inward Data Transfer	
Direct Fax Transfer	
Direct Inward Dialing Number Block Assignment and Maintenance	These are the numbers that are authorized in a PBX for Direct Inward Dialing (DID). See DID below
Direct Inward Dialing /Direct Outward Dialing two-way	A number which has both DOD and DID enabled
Direct Inward Dialing DID	The ability for a caller outside a company to call an internal extension without having to pass through an operator or attendant.
Direct Outward Dialing DOD	The ability to dial outside the company directly from an extension without having to go thorough an operator or attendant.
Disconnect	A type of order that removes items from service and terminates billing even though the items have been accepted. Compare with "cancel."
Disks/Diskettes	A memory system based on rotating disks coated with a magnetic recording medium.
Distinctive ringing	A feature providing the capability of distinguishing between internal or DID calls based on the station ringing pattern.
DS1	Digital Signal Level 1, It is a 1.544 Mbps. The original standard was T-1. A DS1 has 24 DS0s at 64 Kbps.
DS3	Digital Signal Level 3. It translates into a T-3, which is the equivalent of 28 T-1 channels.
Dual service	A feature providing the capability of temporarily terminating calls to a second line as well as to the primary line.
Dual Tone Multifrequency (DTMF)	A method of frequency signaling combining two voice band frequencies to generate one of twelve distinct signals. The selected frequencies, one from each of two geometrically-spaced groups designated "low group" and "high group", assure that no two frequencies of any combination are harmonically related. Specifically used to transmit telephone numbers.
Electronics Industries Associations (EIA)	A Washington, DC trade organization of manufacturers, which sets standards for manufacture of electronics equipment.

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Term	Definition
Electronic Mail	Allows the users of data terminals to send and receive messages from others within the organization. These messages can be created, edited, stored, and sent by the user to another user's "in box". Messages are stored in that in-box until the recipient wishes to read them.
Encryption	A process to convert plain text into an unintelligible form by means of a cryptosystem. Scrambling (mixing) intelligible data into unintelligible data for purposes of secrecy of information.
End-to-end	Telecommunications service from the originating user's terminal to the destination user's terminal.
Enterprise Internetworking	Enterprise internetworking is defined as the ability to communicate electronically from person-to-person, group-to-group, department-to-department, agency-to-agency, or Government-to-Government as the need arises. See internetworking.
Equipment Life	The period of time for which the equipment shall continue to function properly, given reasonable care and maintenance.
Equivalent Equipment	Different makes or models of similar types of equipment that are produced for similar and comparable applications. Equivalent equipment may originate from the same or another manufacturer (see: Government-Owned Like-Equipment).
Fair and Reasonable	A transaction that is fair to both parties, considering the agreed-upon conditions, promised quality, and timeliness of contract performance. FAR 15.402(a) requires contracting officers to ensure that supplies and services are purchased under negotiated contracts at fair and reasonable prices
Feature	A feature is a service function that may be priced separately from the basic price of the service.
Federal Communications Commission (FCC)	The FCC is a Federal regulatory agency that was created by the Communications Act of 1934. It regulates the provision of interstate telecommunications services within the United States.
Fiber Distributed Data Interface (FDDI) Network Service (FNS)	A Local Area Network (LAN) service available from the Local Exchange Carrier in several formats, including Ethernet and Token Ring. Access to the LAN is provided through an FDDI interface.
Fiber Optics	A technology that uses light as a digital information carrier.
Fiber Optic Cable	A fine plastic or glass fiber through which voice and data communications are transmitted in the form of modulated light beams. It can be used to carry relatively large amounts of information long distances without repeaters.
Flexible disconnect, both/either party	The capability to disconnect a call when either or both parties hang up.
Foreign Exchange (FX) Service	A service that enables a subscriber to receive a dial tone from a central office that is outside the subscriber's exchange area.
Frame Relay	A data communications transmission protocol, similar to packet switching, that is optimized for reliable transport facilities (such as fiber optic transport) that transmit at a low bit-error rate.
FTS	The Federal Technology Service, administered by the General Services Administration, provides domestic and international telecommunications services to Government agencies.
FTS2000	The Federal Telecommunications Service 2000 program awarded 10-year contracts to AT&T and Sprint on December 7, 1988 to provide telecommunications services to the United States, Puerto Rico, and Guam. These contracts originally were scheduled to expire on December 6, 1998 but have been extended one more year.
FTS2001	The FTS Program comprises many contracts and acquisition activities, of which the Federal Telecommunications System 2001 (FTS2001) is one. The FTS2001 program superseded the FTS2000 program and provides international telecommunications services using one or more service providers.
Hardware	The physical components of a computer system.

Connections Contract

Term	Definition
Holding Time	The length of time a communications channel or facility is in use for each transmission. Includes both message time and operating time.
Horizontal Wiring	That wiring within a building, which provides a means of taking the circuits from the MDF and/or IDF to the telephone or terminal locations.
Hot Line	Provides for the automatic nondial placement of a call to an endpoint when the originator goes off-hook.
Implementation	The process of adding new services or changing existing services.
Installation Charge	Non-recurring charge which applies to certain items of installed equipment and which covers all or part of the cost of installation of the telephone system, including the installation and moves of telephones.
In writing	The term "in writing" refers to a printed, hard-copy form or to a form that is electronically-accessible via on-line messaging and/or a database. Verbal communication alone is not to be considered "in writing."
Integrated Services Digital Network (ISDN)	A network that provides end-to-end digital connectivity to support a wide range of services, including voice and non-voice services, to which users have access by a limited set of standard multipurpose user network interfaces. See Basic Rate and Primary Rate.
Integrated Voice/Data Terminals (IVDS)	A terminal capable of simultaneous voice/data transmission to separate and distinct terminating locations.
Integrator	A person or organization that performs as the agent for the Government in interaction between equipment manufacturer, service provider, and/or other CONNECTIONS representatives regarding system performance.
Integrity	The assurance that the received data has not been altered in an unauthorized manner from the original transmission.
Intercom Dial	An internal communications system which allows the user to dial another extension in his office complex or home
Interconnection	The linking together of systems, which are not necessarily interoperable.
Interexchange Carrier	Any service provider offering inter-Local Access and Transport Area (inter-LATA) telecommunications services.
Interface	A shared boundary, for example, the boundary between a Central Office Trunk and a PBX.
Intermediate Distribution Frame (IDF)	A distributing frame, the primary purpose of which is to cross connect the various equipment and lines in a telephone system to each other. This location is also referred to as the riser or satellite closet. This location houses equipment that in most cases can provide cross connection and terminations for an entire building floor. It is at this location that the riser cables are terminated and cross connected to the horizontal wiring.
International Telecommunications Union (ITU)	The principal international standards organization chartered by the United Nations, and supported by treaty agreements among member nations. The ITU is the parent organization for the ITU-T (formerly CCITT) and the ITU-R (formerly CCIR). Additionally, the ITU has two other permanent branches: the International Frequency Registration Board (IFRB), and the General Secretariat, (founded in 1865).
internet	A network of networks.
Internet	The combined internets of the world.
Internetworking	The process of interconnecting a number of individual networks to provide a path from a terminal or a host on one network to a terminal or a host on another network. The networks involved may be of the same type or they may be of different types. However, each network is distinct, with its own addresses, internal protocols, access methods, and administration.
Interoperability	The ability of each service provider to effectively and efficiently transfer all information and control data within its own network and between its network and those of other service providers so that a given service offering operates transparently and without performance degradation for users.
Invoice	Synonymous with the term "bill."
Invoicing	Synonymous with the term "billing."

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Term	Definition
ISDN BRI – multipoint (Per Port)	A feature wherein an ISDN BRI line is shared by multiple ports.
ISDN BRI – ISDN BRI packet data on D channel (per line)	A feature on an ISDN BRI line that allows packet data to be sent on the D channel.
ISDN BRI – ISDN BRI Circuit Switched Data on B channel (per B channel)	A feature on an ISDN BRI line that allows packet data to be sent on the B channel.
Jack	A device used generally for terminating the permanent wiring of a circuit, access to which is obtained by the insertion of a plug.
Jack Field	Panel area in which jacks are installed.
Jumper Wire	Short length of conductor used to make a connection between terminals.
kB	Kilobyte
Key Set	Another name for multiline telephones, wherein the buttons (keys) are used for intercom, holding, signaling, and/or pickup of additional telephone lines.
Key Pulse	A system of sending telephone calling signals in which the digits are transmitted by operation of a push button key pad.
Key Telephone System (KTS)	The terminals and equipment in a customer environment that provide access to a variety of telephone services without attendant assistance.
kHz	Kilohertz
Kilobyte (kB)	The term designating 1000 bytes.
Last number redial	The capability of redialing the last number dialed by pressing a feature code or button.
Latency	The time it takes information to transit between terminal devices, including propagation delay and processing delay (e.g., the time required to establish the route or perform other switching tasks).
Line Circuit	Equipment associated with each subscriber line connected to a PBX or Centrex switching system.
Local Area Network (LAN)	A data communications system that (a) lies within a limited spatial area, (b) has a specific user group, (c) has a specific topology, and (d) is not part of the Public Switched Network but may be connected to it.
Local Exchange Carrier (LEC)	A carrier authorized by the state Public Utilities Commission to provide local telecommunications service within a Local Access and Transport Area (LATA). One of several types of geographically limited communications networks intended primarily for such high-speed data transmission applications as data transfer, text, facsimile, and video.
Logon	The procedure that is followed by a user in beginning a period of on-line terminal operation.
Main Distribution Frame	A distributing frame, on one part of which terminates the permanent outside lines entering the telephone switching system and on another part of which terminates the telephone switching equipment. It usually carries the protective devices and functions as a test point between the inside equipment and outside lines. The main cross connection point within the building. This location is usually located where telecommunications equipment is installed. This may also house the telephone company's cables from the street.
Main Station	A telephone station with a distinct call number designation directly connected to the telephone switching system.
Maintenance	(1) Action taken to retain equipment in a serviceable condition or to restore it to serviceability. It includes inspection, testing, servicing, classification as to serviceability, repairs, rebuilding, and reclamation; (2) Routine recurring work required to keep equipment or a facility in such condition that it may be continuously utilized, at its original or designed capacity and efficiency, for its intended purpose.
Mean Time Between Failures (MTBF)	The average length of time for which the system, or a component of the system, works without fault.
Megabyte (MB)	The term for 1,048,576 (2 ²⁰) bytes.

Connections Contract

Term	Definition
Message waiting indication	A visual or aural indication at a station that a message is waiting.
Metropolitan Area Acquisition (MAA) program	The MAA is a Government program for acquiring and providing local telecommunications services to authorized users in localities where there is significant competition in the provision of local telecommunications services.
Microwave	A term applied to radio frequency wavelengths less than 30 centimeters long, corresponding to a frequency of one GHz or greater.
Minimum Point of Penetration (MPOP)	The point, normally at the Main Distribution Frame or MDF of a building, where the Local Exchange Carrier's entrance cable is terminated and cross-connected to the inside wiring that serves the building.
Modem	The acronym for Modulator-DEModulator. Modems are used for converting digital signals into quasi-analog signals for transmission over analog communication channels and for reconverting the quasi-analog signals into digital signals. Contrast with codec. Acronym for Modulator/Demodulator, a device for converting digital pulses to analog signals (and vice versa) to transmit digital information over analog communication networks.
Move	A move is a change in the customer's terminal location within the same building.
Multiple Appearance Directory Numbers	A directory number that is assigned more than once to one or more telephone sets.
Multiple Appearance Preselection and Preference	Provides multi-line appearance voice terminal users with options for placing or answering calls on selected appearance.
Multiplexing	The division of a transmission facility into two or more channels by: (1) splitting the frequency band transmitted by the channel into narrower bands, each of which constitutes a distinct channel (frequency-division multiplexing); (2) by allotting this common channel to several different information channels, one at a time (time-division multiplexing); or (3) simultaneously sharing the frequency and time slots using "orthogonal" digital signals (code division multiplexing).
NBD	The Normal Business Day (NBD), is defined in Section C.2.3, to extend from 7 AM to 7 PM Monday through Friday, excluding Federal holidays.
Network	An interconnection of three or more communicating entities and three or more nodes.
Network Interface Device (NID)	A device used primarily within a local area network to allow a number of independent devices with varying protocols to communicate with each other.
Nonrecurring Charges	Onetime charges, such as charges for installation, reinstallation, disconnection, deinstallation and rearrangement.
Not Separately Priced	Required, but included and priced elsewhere, in a system and/or service already priced.
Notice to Proceed	Time at which the contractor assumes responsibility to provide equipment and services under the contract.
NPA-NXX	The NPA is the Numbering Plan Area, also known as the area code, and NXX is the designator for the first three digits of a seven-digit local telephone number, known as the Exchange Code, that identifies the serving central office.
Numbering Plan Area (NPA)	First 3 digits in 10-digit calling number (Area Code).
OC-n	Optical Carrier - Type n. For example, OC-1 operates at a line payload rate of 51.840 Mb/s; OC-3 at 155.520 Mb/s; OC-12 at 594.432 Mb/s; and OC-48 at 2.488 Gb/s.
OCONUS or OCNUS	Other than the Contiguous United States. For purposes of National CONNECTIONS contracts, OCONUS is Alaska, American Samoa, the Virgin Islands, Guam, Hawaii, Puerto Rico, Saipan, and the remaining Northern Mariana Islands.
Order	The means by which the Administrative Contracting Officer and Designated Agency Officials order, change, cancel, or disconnect services and equipment.
Outgoing Trunk	A trunk from one switching center to another switching center that transports outgoing traffic only. See ONE- WAY TRUNK.

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Term	Definition
Outside Normal Business Day (ONBD)	Outside the Normal Business Day (ONBD); as defined in Section C.2..3 to be any time other than the Normal Business Day.
Overflow	The generation of equipment usage beyond the capacity of a system or subsystem.
Packet	A grouping of a sequence of binary digits in data communication, including data and control signals, that is transmitted and switched as a composite whole. The data control signals, and possibly error control information, are arranged in a specific format. The packet can be of fixed or variable length.
Packet mode	A group of data and control characters transported as a whole. A packet switched operational mode for transferring (transporting and switching) user information through a network without establishing a connection. The packets do not necessarily arrive at their destination in the order they were sent, unlike the circuit mode of transmission.
Packet switching	A system in which messages are broken down into smaller units called packets, which are then individually addressed and routed through the network. Transmission of data by means of addressed packets whereby a transmission channel is occupied for the duration of transmission of the packet only. The channel is then available for use by packets being transferred between different data terminal equipment.
Paging	Access to radio and multizone paging systems by dialing separate access codes from an individual station.
Price	The charge for the associated price element.
Price element	The equipment or service component to be priced. An offeror may propose more than one price element for each equipment or service type/price combination.
Primary rate	The transmission rate supported by the ISDN primary rate interface, defined on CCITT I.412 as 1,536 kb/s and composed of 23 B (64 kb/s) and one D (64 kb/s) channels.
Primary Rate Access	Provides direct T-1 access to the system in preparation for PRI.
PRI (Primary Rate Interface)	Connects high-capacity customer premises equipment, such as PBXs, to the network and (in the United States) is composed of twenty-three (23) 64 Kbps (B) channels and one (1) 64 Kbps (D) channel.
Privacy	A feature that provides the capability for a user to prevent others from entering into a connection on a multi-appearance line. Ensures that a call will not be interrupted by another person or by signals from the system.
Private Branch Exchange (PBX)	Telephone switching equipment that conforms to the Electronics Industries Association (EIA) standards RS-464 and RS-464-1 and meets FCC registration requirements for interconnection to the Public Switched Network. An independent switching system within a Local Exchange Area providing dial services within a subscribers premises with access to or from the LEC.
Procuring Contracting Officer	The Procuring Contracting Officer (PCO) is responsible for the procurement prior to contract award.
Protocol	A set of procedures for establishing and controlling communications transmissions.
Provisioning	The act of supplying equipment and service to a user.
Purchase of Telecommunications Services (POTS)	A GSA contract program by which all Federal agencies are able to purchase telecommunications equipment and services from a fully competed contract.
Rearrangement	Pertains to changes to in-place station equipment and functions, i.e., line pickups, intercom codes, audible signaling arrangements, etc.
Redacted	For purposes of this RFP, edited to remove sensitive material from a document that is provided to the public.
Reinstallation	Installation of previously de-installed telecommunications equipment outside a building or campus area or installation of previously stored equipment.
Replaced date	The date on which a quoted price is replaced.
Retain	“Retain,” as used in the CONNECTIONS RFP, means to “keep in one’s service.” The retained person must be contractually “on-call.”

Connections Contract

Term	Definition
Riser cable	That wiring within a building, which provides the means of taking the circuits from the MDF to the IDF.
Scheduled Data Transfer	Sends automatically the selected data file at a specified time to a specified phone number.
Scheduled Fax Transfer	Sends automatically the selected fax at a specified time to a specified phone number
Service due date	The date when the contractor commits that the order will be completed.
Set-up charge	A charge to compensate the contractor for preparations and technical support prior to the start of a scheduled audio or video teleconference.
Shared ISDN PRI D Channel	A PRI configuration in which the D channel is shared (e.g., several PRIs having a 24B+ 0D configuration share a D channel).
Six-way conference call	A service feature capability that allows a call to be established among six stations, with the ability to carry-on conversations with each station simultaneously. The user will have the ability to both activate and control the feature.
Software reconfiguration by customer	Allows the customer to change the configuration of a line or trunk without the assistance of the service provider.
Speed calling, one digit	A feature that allows a station user to reach any of a preselected group of stations by dialing single-digit codes.
Speed calling, two digits	A service feature which enables a user to dial telephone numbers of 15 digits or less in length, by dialing an assigned two-digit code.
Standard feature	A switch or station feature designated by the manufacturer to be available at the time of install and is available to all users on demand.
Start date	The date on which a quoted price becomes effective.
Station	A data terminal or voice terminal used to access a network.
Station equipment	The input or output devices connected to the switching system such as the telephone set, terminals, modems, etc.
Station set	Complete telephone equipment including handset, ringer, and other associated parts located at the subscriber location.
Stop date	The date on which a quoted price is no longer effective.
Subscriber	One that uses telecommunications service. Person or organization to which telephone service is extended.
Subscriber line	A telephone line between the telephone switching equipment and a subscriber telephone station.
Synchronous transmission	Digital transmission in which the time interval between any two similar significant instants in the overall bit stream is always an integral number of unit intervals. A transmission process whereby the information and control characters are sent at regular, clocked intervals so that the sending and receiving terminals are operating continuously in step with each other. Compare with ASYNCHRONOUS TRANSMISSION.
T1	The digital service that provides transmission between two stations at an aggregate data rate of 1.544 Mb/s. Also known as DS1 service.
T3	The digital service that provides transmission between two stations at an aggregate data rate of 44.736 Mb/s. Also known as DS3 service.
Task Order	A task order is an order for services placed against an established contractor or with Government sources. Contrast with delivery order.
Telecommunications Support Contract	A GSA contract for obtaining telecommunications consulting and support services.
Teleconferencing	A conference between persons remote from one another but linked by a telecommunications system.
Telemetry Circuits	Circuits used for the transmission of information from remote locations.

Connections Contract

Term	Definition
Terminal	An input/output device designed to receive and/or send source data in an environment associated with the job to be performed and capable of transmitting entries to and obtaining output from the system of which it is a part.
Three-way conference calling	See six-way conference calling.
Tie Line	A private line communication channel for linking two or more stations or switching systems together.
Tie trunk	A dedicated circuit linking two PBXs.
TOPS	The Telecommunications Ordering and Pricing System (TOPS) is one of several systems used by GSA to allow client agencies to order products and services and to bill for same.
Transparent	The passing of data through equipment without interacting with the call-processing action of the switch.
Trouble	Failure of a system or circuit or item of equipment or software to perform to specification.
Trunk or Trunk Circuit	A single transmission path between two switches and/or nodes.
Trunk Group	Two or more trunks of the same type between the same two points.
Trunk Group Denial	Allows lower priority outgoing calls to be blocked during an emergency
Unclassified National Security-Related (UNS-R)	Essentially, any unclassified information related to the national defense or foreign relations of the United States, including bits and pieces that in the aggregate would be even more revealing, or that could be useful to an adversary, is UNS-R information.
Universal Wiring	A type of wiring that allows for the administration of cable termination via modular cross connect fields, which allows for analog and digital terminations.
Usage Charge	The contractor may assess usage charges for specified products, services and features.
Variable Bit Rate	A Variable Bit Rate is a flow of information that is bursty. Used to support applications such as e-mail where a Constant Bit Rate is not required.
Video Conferencing	A form of simplex, half-duplex or full duplex operation in which more than two stations may simultaneously exchange information, carry on conversations or pass messages in a digital environment.
Video Data Terminal (VDT)	Refers to data terminals that display transmitted and received data on a television-like screen.
Virtual circuit	A communication arrangement in which data from a source user may be passed to a destination user over various real circuit configurations during a single period of communication.
Virtual Local Area Network	An internetworking arrangement in which a logically separate Local Area Network functions as though it were part of the client's Local Area Network.
Voice mail	A voice messaging system.
Voice Messaging (VM)	A peripheral system that can operate with most PBX, hybrid, or key telephone systems. These systems can send, receive, and redirect voice messages or "telephone mail" through office telephone systems and computers.
Working Days	Monday through Friday, excluding Federal Government holidays.
Working Hours	Unless otherwise specified elsewhere in the Contract, those hours from 8:00 AM through 5:00 PM, during Working Days.